Commonwealth of Pennsylvania

DEPARTMENT OF AGRICULTURE

Bulletin No. 212

TABULATED ANALYSES OF

COMMERCIAL FERTILIZERS

From Samples Selected in Accordance
with Act of May 1, 1909

BY THE PENNSYLVANIA DEPARTMENT
OF AGRICULTURE

From January 1 to August 1, 1911

HARRISBURG:
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The Act of 1st May, 1909, Commonly Referred to as "The New Fertilizer Law" is as Follows:

No. 205.

AN ACT

To regulate the manufacture and sale of commercial fertilizers; prescribing penalties for its violation, and repealing an act, entitled "An act to regulate the manufacture and sale of commercial fertilizers; providing for its enforcement, and prescribing penalties for its violation," approved the twenty-fifth day of March, Anno Domini one thousand nine hundred and one.

Section 1. Be it enacted, &c., That every package of commercial fertilizer sold, offered, or exposed for sale, for manurial purposes within this Commonwealth, except the dung of domestic animals, lime, marl, and wood-ashes, shall have plainly stamped thereon the name and address of the manufacturer or importer and his place of business, the net weight of the contents of the package, the brand or trade-name of the fertilizer the package contains, and an analysis stating the percentage such fertilizer contains of nitrogen in an available form, of potash soluble in water, of soluble and reverted phosphoric acid, and of insoluble phosphoric acid.

Section 2. Every manufacturer or importer of commercial fertilizers, as specified in section one of this act, shall, on or before the first day of January of each year, or before offering them for sale in this Commonwealth, file annually with the Secretary of Agriculture a statement of the names and number of brands of such commercial fertilizers, having distinct trade-names, that he shall offer for sale during the next ensuing year, and a copy of the analysis of each one of such brands of commercial fertilizers, as required by section one of this act.

Section 3. In addition to the statement required by section two of this act, every manufacturer or importer of commercial fertilizers shall, on or before the first day of January of each year, or before offering them for sale in this Commonwealth, file annually with the Secretary of Agriculture an affidavit showing the amount of each brand of fertilizer, having a distinct trade-name, sold within the Commonwealth during the last preceding year; and if the said amount shall be one hundred tons or less, he or they shall pay or cause to be paid to the Secretary of Agriculture the sum of fifteen dollars for each and every brand of such commercial fertilizer, having a distinct trade name sold within the State during the last preceding year;

and if the said amount shall exceed one hundred tons, and be less than five hundred tons, he or they shall pay the sum of twenty dollars, as aforesaid; and if the said amount shall be five hundred tons or more, he or they shall pay the sum of thirty dollars, as aforesaid. If such manufacturer or manufacturers, importer or importers, shall not have made any sales within the Commonwealth during the preceding year, he or they shall pay the sum of fifteen dollars upon each such brand, as aforesaid: Provided, That all monies so received shall be immediately paid by the Secretary of Agriculture into the State Treasury, for the use of the Commonwealth.

Section 4. No person shall sell, offer, or expose for sale, in this State, any pulverized leather, hair, ground hoofs, horns, or wool waste, raw, steamed, roasted, or in any form, as a fertilizer, or as an ingredient of a fertilizer or manure, without an explicit statement of the fact; said statement to be conspicuously affixed to every package of such fertilizer or manure, and to accompany and go with every lot, parcel, or package of the same.

Section 5. Any person or persons selling, offering, or exposing for sale, any commercial fertilizer or any brand of the same, having a distinct trade-name, without the analysis required by section one of this act, or with an analysis stating that it contains a larger percentage of any one or more of the above-named constituents than is contained therein, or for the sale of which all the provisions of sections two and three have not been complied with, or any person violating any of the provisions of section four of this act, shall be guilty of a misdemeanor, and, on conviction, shall be sentenced to pay a fine of not less than twenty-five nor more than one hundred dollars for the first offense, and not less than two hundred dollars for each subsequent offense. It shall be the duty of the Secretary of Agriculture to enforce the provisions of this act, and all penalties, costs, and fines recovered shall be paid to him or his duly authorized agent, and by him shall be immediately paid into the State Treasury, for the use of the Commonwealth.

Section 6. The Secretary of Agriculture is hereby empowered to collect samples of commercial fertilizers, either in person or by his duly qualified agent or representative, and to have them analyzed, and to publish the results for the information of the public; and for this purpose the said Secretary of Agriculture, such assistants, agents, experts, chemists, detectives, and counsel as he shall duly authorize, shall have full access, ingress, and egress to and from all places of business, factories, barns, buildings, carriages, cars, and vessels, used in the manufacture and transporta-

tion, or sale, or any commercial fertilizer. They shall also have power to open any package or vessel containing or supposed to contain any commercial fertilizer, and take therefrom samples for analysis, upon tendering the value of said samples.

Section 7. The term "commercial fertilizers," as used in this act, shall be construed to mean any and every substance imported, manufactured, prepared, or sold for fertilizing or manuring purposes, except the dung of domestic animals, marl, lime, and wood-ashes, and not exempt by the provisions of section one of this act.

Section 8. This act shall go into effect on and after the thirty-first day of July, one thousand nine hundred and nine; and the act, entitled "An act to regulate the manufacture and sale of commercial fertilizers; providing for its enforcement, and prescribing penalties for its violation," approved the twenty-fifth day of March, Anno Domini one thousand nine hundred and one, is hereby repealed.

Approved—The 1st day of May, A. D. 1909.

EDWIN S. STUART.

No. 95.

AN ACT

Making it unlawful for any person, firm, or corporation, engaged in the manufacture or sale of commercial fertilizers, to use the word "bone" in connection with, or as part of the name of, any fertilizer, or any brand of the same, unless the phosphoric acid contained in such fertilizer shall be the product of pure animal bone; and providing a penalty for violation of the same.

Section 1. Be it enacted, &c., That it shall be unlawful for any person, firm or corporation, engaged in the manufacture or sale of commercial fertilizers, to use the word "bone" in connection with, or as part of the name of, any fertilizer, or any brand of the same, unless the phosphoric acid contained in such fertilizer shall be the product of pure animal bone.

Section 2. Any person or persons violating the provisions of this act shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall pay a fine of fifty dollars for the first offense, and a fine of not less than one hundred dollars, nor more than two hundred dollars, for every subsequent offense; such fine or fines to be paid into the State Treasury, for the use of the Commonwealth. The Secretary of Agriculture shall, together with his deputies, agents, and assistants, be charged with the enforcement of this act.

Section 3. All magistrates, aldermen, and justices of the peace throughout this Commonwealth shall have jurisdiction to hear and determine actions arising from violations of the provisions of this act, and shall have authority to hold for court, or to impose the penalty hereby prescribed, subject to appeal, as the law shall direct.

Section 4. This act shall go into effect on the first day of January, Anno Domini nineteen hundred and ten.

Approved—The 23d day of April, A. D. 1909.

EDWIN S. STUART.

State College, Pa., July 22, 1911.

Hon. N. B. Critchfield, *Secretary of Agriculture, Harrisburg, Pa.:*

Dear Sir: I have the honor to transmit herewith my report upon the analyses of the samples of commercial fertilizers received from official sampling agents during the spring season of 1911.

Very respectfully,

WM. FREAR,

Vice Director and Chemist, The Penna. State College Agricultural Experimental Station.

FERTILIZER VALUATIONS.

The object of an official valuation of commercial fertilizers is to enable the consumer to judge approximately whether he has been asked to pay for a given brand more than the fertilizing ingredients it contains and market conditions prevailing at the time would warrant. It is clear, therefore, that no attempt is made in this valuation to indicate whether the fertilizer valued possesses a greater or less crop-producing capacity than another fertilizer; but only whether it is higher priced than another of the same general composition.

For this purpose the valuation must be so computed as to include all the elements entering into the cost of a fertilizer as it is delivered to the consumer. These elements may conveniently be grouped as follows:

1. The wholesale cost of the ingredients.

2. The jobbers' gross profit on the sale of the ingredients; this includes office expenses, advertising, losses, etc.; for the purpose of the present computation it may be assumed that the sum of this gross profit and the wholesale cost of the ingredients, is equivalent to the retail price of the single ingredients near the wholesale markets in ton lots of original packages for cash.

3. The expense and profit of mixing: This item applies only to complete fertilizers, rock and potash, and ammoniated rock; not to dissolved or ground bone, or to dissolved rock.

4. The expense and profit of bagging.

5. Agents' commission: This item includes not only the commission proper, but every advance in price due to the sale of the goods through an agent in small quantities on time, rather than directly to the consumer in ton lots for cash.

6. Freight from the wholesale market to the point of delivery.

The valuations for 1911 were based:

1. Upon the wholesale prices from September 1, 1910, to March 1, 1911, of the raw materials used in fertilizer manufacture, the quotations of the New York market being adopted for all materials except acidulated phosphate rock and ground bone.

2. Upon an allowance of 20 per cent. of the wholesale prices, above mentioned, to cover jobbers' gross profit.

By adding the 20 per cent. allowed for jobbers' gross profit to the wholesale price of the several raw materials, the retail price in original packages at the jobbers' warehouse is obtained.

Since the amount of the several valuable fertilizing constituents in the various raw materials is known, it is a simple matter to determine the corresponding retail value per pound of the valuable fertilizing constituents yielded by each raw material. A schedule of these pound values affords a convenient basis of computation of the value per ton of various fertilizers, whose composition is ascertained by analysis.

The values assigned, for the present, to the other elements in the cost of the fertilizer at the point of delivery are:

3. For mixing, $1.00 per ton.

4. For bagging, $1.00 per ton, in all cases except those in which the article was sold in original packages; the cost of the package being, in such cases, included in the wholesale price.

5. For agents' commission, 20 per cent. of the cost of the goods f. o. b. at the jobbers' or mixers' warehouse.

6. For freight, $2.00 per ton; the cost of the freight in lots of twelve tons or over, from the seaboard to Harrisburg, averaging $1.88 per ton.

The following valuation of dissolved South Carolina rock illustrates the method:

Phosphoric Acid.	%	Weight per ton.	
Available,	14.00	280 lbs. at 3c,	$8.40
Insoluble,	1.00	20 lbs. at 1½c,	.30
Retail cash value of ingredients,			8.70
Bagging,			1.00
Cash value of goods ready for shipment,			9.70
Agents' commission, 20 per cent.,			1.94
Freight,			2.00
Commercial value per ton,			$13.64

It is not to be expected, of course, that the valuations thus computed will precisely represent the fair price to be charged for a brand in each locality and in every transaction. Market conditions, competition, distance from factory, all introduce minor variations. Nevertheless, to make the approximation reasonably close the average valuation of a given class of goods ought to agree closely with its ascertained average selling price. Whenever such an agreement is no longer obtained by the use of a schedule, it is evident that the schedule of retail values of the constituents, or the added allowances for mixing, etc., requires revision.

It is needful to note here another factor greatly affecting the practical accuracy of these approximations. Their computation would offer little difficulty and their usefulness be far greater, if, by the

ordinary methods of analysis, the exact nature of the ingredients used to supply the several fertilizer constituents, were capable of certain determination. This is, however, possible to-day to only a limited extent. The valuations are therefore based on the assumption that the fertilizers are uniformly compounded from high quality ingredients, such as are commonly employed in the manufacture of fertilizers of the several classes. Consumers should carefully avoid the error of accepting such valuations as infallible; they are not designed to be used for close comparisons of single brands, but only to indicate whether the price asked for a fertilizer is abnomal, assuming good quality for the ingredients used. From this it is clear that, *except as high freights may require, the selling price of a brand should not far exceed the valuation; but that a fertilizer may be made of inferior materials and yet have a high valuation.*

The valuations used during 1910 were modified for use during 1911 in accordance with the changes in wholesale prices of fertilizing ingredients and to make the valuations more closely follow the selling price.

The following comparative statement shows the valuations and selling prices of the several classes of fertilizers during 1906 to 1910.

Fertilizers.	Number of samples.	Valuation.	Selling price.	Difference of valuation from selling price.
Spring, 1906.				
Complete,	412	24.76	23.55	1.21
Rock-and-potash,	99	15.19	16.17	—.98
Dissolved bone,	4	22.65	24.40	—1.75
Ground bone,	34	28.23	29.02	—.79
Dissolved rock,	45	12.98	13.75	—.77
Fall, 1906.				
Complete,	266	22.99	21.87	1.12
Rock-and-potash,	71	15.06	15.76	—.70
Dissolved bone,	7	25.33	22.06	3.27
Ground bone,	34	29.12	27.80	1.32
Dissolved rock,	43	12.99	13.45	—.46
Spring, 1907.				
Complete,	424	26.84	24.60	2.24
Rock and-potash,	103	16.63	16.94	—.31
Dissolved bone,	6	25.08	22.28	2.80
Ground bone,	27	29.64	31.55	—1.91
Dissolved rock,	41	14.72	14.64	.08
Fall, 1907.				
Complete,	280	24.59	22.71	1.88
Rock-and-potash,	96	15.82	16.58	—.76
Dissolved bone,	8	27.61	22.09	5.52
Ground bone,	36	28.80	28.92	.12
Dissolved rock,	48	14.67	14.76	.09

Fertilizers.	Number of samples.	Valuation.	Selling price.	Difference of valuation from selling price.
Spring, 1908.				
Complete,	455	26.23	25.69	.54
Rock-and-potash,	108	16.24	16.96	—.62
Dissolved bone,	4	23.09	21.11	1.98
Ground bone,	21	28.96	29.04	—.08
Dissolved rock,	33	14.92	14.72	.20
Fall, 1908.				
Complete,	287	23.88	22.34	1.54
Rock-and-potash,	104	16.17	16.43	—.26
Dissolved bone,	6	26.05	22.48	3.57
Ground bone,	30	27.90	29.18	—1.28
Dissolved rock,	49	14.86	14.31	.55
Spring, 1909.				
Complete,	426	25.31	24.88	—.43
Rock-and-potash,	111	15.94	16.98	—1.40
Dissolved bone,	8	21.57	22.25	—.68
Ground bone,	24	30.28	30.70	—.42
Dissolved rock,	33	13.62	14.76	—1.14
Fall, 1909.				
Complete,	255	22.25	22.07	.14
Rock-and-potash,	92	15.50	16.10	—.60
Dissolved bone,	3	22.85	24.50	—1.65
Ground bone,	26	28.71	29.39	—.68
Dissolved rock,	41	14.02	13.86	.16
Spring, 1910.				
Complete,	436	26.63	25.26	1.37
Rock-and-potash,	123	16.08	17.16	—1.08
Dissolved bone,	8	21.47	22.17	—.70
Ground bone,	24	30.27	30.19	.08
Dissolved rock,	47	14.00	14.56	—.56
Fall, 1910.				
Complete,	294	22.24	21.76	.48
Rock-and-potash,	109	16.34	16.38	—.04
Dissolved bone,	4	25.70	25.80	—.10
Ground bone,	29	31.10	29.98	1.12
Dissolved rock,	32	14.15	14.01	.14

The following statement from the weekly reports of the Oil, Paint and Drug Reporter, of New York City, shows the average wholesale prices of fertilizer raw materials from September 1, 1909, to March 1, 1910, and from September 1, 1910, to March 1, 1911:

Wholesale Prices of Fertilizer Ingredients, New York, Oil, Paint and Drug Reporter.

Substance.	Amount priced.	Average price Sept. 1, 1909 to March 1, 1910.	Average price Sept. 1, 1910 to March 1, 1911.	Prices Sept.-March 1910-11, in per cent. of prices 1909-1910.
Sulphate of ammonia,	Cwt.,	2.6547	2.945	110.9
Nitrate of soda,	Cwt.,	2.0941	2,1236	101.1
Dried blood, H. G.,	Unit (20 lbs.),	2.8561	3.295	115.3
Concentrated tankage,	Unit (20 lbs.),	2.4783	2.78	112.0
Rough bone,	Ton,	20.92	21.50	102.8
Bone meal,	Ton,	21.7812	23.25	106.3
Fish guano, dry,	Unit (20 lbs.),	2,9191	3.073	105.2
Phosphate rock, Tennessee,	Ton,	5.25	5.25	100.0
Acid phosphate,	Unit (20 lbs.),	.575	.635	110.4
Double manure salt,	Ton,	23.10	22.75	98.4
Sulphate of potash,	Ton,	43.39	43.50	100.3
Kainit,	Ton,	8.47	7.50	88.5
Muriate of potash,	Ton,	37.66	35.75	94.9
Sulphuric acid, 66° B.,	Cwt.,	1.05	1.05	100.0

In ammoniates such as dried blood and fish guano, the unit is of ammonia, of which 82.35 per cent. is nitrogen; in acid phosphate, the unit is of phosphoric acid (phosphorus pentoxid).

There has been a slight increase in prices in blood, bone and tankage, due to the increased demand for this class of ammoniates caused by the export business, which has taken practically all of the cottonseed meal out of the country.

Nitrate of soda and sulphate of ammonia, also, showed a slight increase in price.

Acid phosphate is slightly higher, while phosphate rock shows no change in price compared with last year, the price per short ton having remained constant throughout the year at $5.25, for Tennessee phosphate.

Potash Salts: The reports of the U. S. Bureau of Statistics show the following entries for consumption during the fiscal year 1908 and 1909:

	1908.	1909.
Muriate (pounds),	236,949,002	297,337,838
Kieserit, kainit, etc. (tons),	329,467	

The past year has witnessed a struggle on the part of certain commercial interests to divide the Prussian potash monopoly. Its immediate effect has not, however, altered materially, if at all, the existing schedule of potash prices.

Composition of Raw Materials.—In order to form a correct idea of the cost per pound of the fertilizer constituents of these materials, it is needful to determine their composition or, in other words, the quantities of valuable constituents each contains. The following table shows the composition of the raw materials used in the manufacture of fertilizers. Few analyses of these materials, with the exception of ground bone and dissolved rock, have been made in Pennsylvania. The figures in the following table include the averages of the results of analyses made in Connecticut, New Jersey and Massachusetts during the past year, except in the case of ground bone and dissolved rock phosphates, where Pennsylvania results alone are included.

Composition of Non-Acidulated Fertilizer Ingredients (Per cent.)

Substance.	Number of samples analzed.	Nitrogen.	Potash.	Total phosphoric acid.
Sulphate of ammonia,	15	20.10	.....	.....
Nitrate of soda,	74	15.43	.....	.....
Dried blood,	24	10.68	.....	.....
Ground bone,	85	2.86	.....	24.41
Tankage,	63	5.86	.....	11.51
Ground fish,	82	7.91	.....	7.42
Cottonseed meal,	260	6.94	.....	.....
Castor pomace,	10	5.06	.....	.....
Sulphate of potash,	21	.....	50.25	.....
Muriate of potash,	63	.....	51.56	.....
Kainit,	30	.....	13.24	.....
Double sulphate of potash and magnesia,	7	.....	27.26	.....

Composition of Acidulated Fertilizer Ingredients (Per cent.)

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	Number of samples.	Total phosphoric acid.	Insoluble phosphoric acid.	Nitrogen.
Dissolved bone,	4	14.02	2.95	2.01
Dissolved rock phosphate,	32	15.56	1.29	.....

Cost per Pound of Fertilizer Constituents.—With the composition of these raw materials and their price per ton, hundred weight, or other unit of measure as a basis, the wholesale cost per pound of the valuable constituents can readily be calculated. In many cases the ammoniates are quoted "per unit of ammonia," the term unit being equivalent to per cent.; in goods sold by the ton of 2,000 lbs., the unit is equal to 20 lbs., and 20 lbs. of ammonia contain 16.47 lbs. of nitrogen.

In the case of refuse bone-black, unacidulated, the mean, 28.25 per cent. of phosphoric acid, is assumed to represent the average material on the market.

Phosphate rock is sold by the ton of 2,240 lbs., and on the basis of the bone phosphate of lime it contains, with drawbacks for injurious constituents. Bone-phosphate of lime contains 45.8 per cent. of phosphoric acid; therefore, each per cent. of bone phosphate in a long ton is equivalent to 22.4 lbs., and contains 10.26 lbs. of prosphoric acid.

In the wholesale trade, dried blood, azotine, concentrated tankage and hoof meals are usually sold on the basis of ammonia, disregarding the phosphoric acid present.

Insoluble phosphoric acid in dissolved rock is likewise omitted from consideration, contracts being based solely upon the "available" phosphoric acid; nor in rock phosphates is any claim made for the small quantities of nitrogen and potash they contain, nor in dissolved bone for the potash present.

Under these conditions, the wholesale cost per pound in New York of the valuable constituents of such materials as furnish but a single fertilizing element, these materials being assumed to be in the state of preparation and in the packing in which the manufacturer purchased them, are given in the following table; also a figure representing a fair retail price at the factory, the materials having undergone no change in treatment or packing and the allowance for expenses and profit in retailing being 20 per cent.

Wholesale Cost per Pound of Fertilizing Constituents, New York.

1. INGREDIENTS SUPPLYING ONE CONSTITUENT.

Materials.	Constituent Valued.	Wholesale price, cents.	Wholesale prices plus 20 per cent., cents.
Sulphate of ammonia,	Nitrogen,	14.66	17.59
Nitrate of soda,	Nitrogen,	13.44	16.49
Dried blood,	Nitrogen,	20.00	24.00
Concentrated tankage,	Nitrogen,	16.88	20.26
Phosphate rock, Tennessee, 78 per cent.,*	Phosphoric acid, total,	.73	.98
Acid phosphate,	Phosphoric acid, available,	3.175	3.81
Double sulphate of potash and magnesia,	Potash,	4.17	5.00
Sulphate of potash,	Potash,	4.33	5.10
Kainit,	Potash,	2.83	3.49
Muriate of potash,	Potash,	3.49	4.19

*The prices of phosphate rock are f. o. b. at the respective points of shipment, not New York. The prices for potash are taken from the schedule of the syndicate, and those of the remainder from the Oil, Paint and Drug Reporter.

The quotations for bone are given without specific reference to quality, so that it is impossible, from these data, fairly to apportion their several wholesale values to the nitrogen and phosphoric acid contained in this material. As compared with tankage, the general tendency is to assign a higher commercial rating to the phosphoric acid in bone, and to nitrogen, a rating not very different from that given in tankage.

In former years, the value assigned to the nitrogen has been the same as that quoted on crushed tankage, c. a. f. Baltimore. In later years, quotations for both crushed tankage and ground tankage have not been available, and for that reason, the value of nitrogen is based upon the quotations for concentrated tankage.

In earlier years, quotations on ground tankage have been about 5 per cent. in advance of those on concentrated tankage, also quotations on crushed tankage were on an average 12.67 per cent. in advance of these on ground tankage. Increasing the price of concentrated tankage by these percentages we have $3.28 per unit of ammonia as the value assigned to the nitrogen in bone.

This is equivalent to $3.99 per unit of nitrogen.

The average composition of the ground bone and bone meal samples analyzed last fall in Pennsylvania was: Phosphoric acid, 22.23 per cent.; nitrogen 2.87 per cent.

The prepared bone contains less fat and moisture, and often less nitrogen than the ordinary rough bone, but these differences tend, in a measure, to neutralize each other. Assuming for the rough bone

quoted in the New York market the same composition as the bone meal sold in Pennsylvania, and for the value of the nitrogen $3.99 per unit, as previously stated, the values per pound of the several constituents would be:

Wholesale Cost per Pound of Fertilizer Constituents, New York.

II. BONE.

Materials.	Constituent Valued.	Wholesale price, cents.	Wholesale price plus 20 per cent.
Rough bone,	Nitrogen,	19.95	23.94
	Phosphoric acid,	2.49	2.99
Ground bone,	Nitrogen,	21.55	25.86
	Phosphoric acid,	2.69	3.23

Valuation in Neighboring States.

It is desirable, from all points of view, that the schedules of valuation throughout a district in which similar market conditions prevail, should differ as little as possible. It has been our practice in the past, to conform our schedule to that adopted after very careful co-operative study of market conditions for each year, by the New England States, New York and New Jersey, except where the peculiar conditions of our markets have made the valuations diverge too largely from the actual selling prices, as in the case of ground bone and dissolved rock phosphates. The schedules for these States for 1910 and 1911 are as follows:

Trade Values Adopted by the New England States and New Jersey.

	Cents per pound.		Values in 1911 in per cent. of those in 1910.
	1910.	1911.	
Nitrogen:			
In nitrates,	16	16	100.0
In ammonium salts,	16	16	100.0
In dry and fine ground fish and blood,	20	23	115.0
In fine bone and tankage and mixed fertilizers,	20	20	100.0
In coarse bone and tankage,	15	15	100.0
Phosphoric acid:			
Water soluble,	4½	4½	100.0
Citrate soluble,	4	4	100.0
In fine ground bone and tankage,	4	4	100.0
In coarse bone and tankage,	3½	3½	100.0
In mixed fertilizers, insoluble,	2	2	100.0
Potash:			
In forms free from muriate,	5	5	100.0
As muriate,	4¾	4¾	100.0

Valuations in Pennsylvania.

For reasons stated on the previous page, the New England schedule has been followed in the case of mixed fertilizers and dissolved bones.

In the case of the dissolved rocks, the wholesale prices of raw materials used in their manufacture and of the available phosphoric acid itself, having shown no material change, the values used in the Pennsylvania schedule for 1910 were continued for use during the present year.

In the case of ground bones, the commercial valuations for the fall of 1910 were somewhat greater, on the average, than the retail market prices; the wholesale prices of bone showed, however, some advance during the fall and winter. The valuations and market prices have been brought into closer agreement by a slight increase of the values assigned to bone nitrogen, the change at this point corresponding in direction to that for organic nitrogen in general.

The entire schedule adopted for use in this State is presented in the following table:

Pennsylvania Schedule of Values for Fertilizer Ingredients, 1911.

	Cents per Pound.
Nitrogen:	
In ammonia salts,	16
In nitrates,	16
In meat, dried blood and mixed fertilizers,	20
In fine ground bone and tankage,	18
In coarse bone and tankage,	15
Phosphoric acid:	
Available, in bone fertilizers,	4¼
Available, in rock fertilizers,	3
Insoluble in ammonium citrate, in bone fertilizers,	2
Insoluble in ammonium citrate, in rock fertilizers,	1½
In fine bone, tankage and fish,	3¼
In coarse bone and tankage,	2½
In cottonseed meal, castor pomace and wood ashes,	3½
Potash:	
In high grade sulphate or forms free from muriate,	5
As muriate,	4¼

Potash in excess of that equivalent to the chlorin present, will be valued as sulphate, and the remainder as muriate.

In certain cases where specific claim is made by the manufacturer that potash has been added as carbonate, potash in excess of that equivalent to soluble chlorides and soluble sulphates will be valued as carbonate.

Nitrogen in mixed fertilizers will be valued as derived from the best sources of organic nitrogen, unless clear evidence to the contrary is obtained.

Phosphoric acid in mixed fertilizers is valued at bone phosphoric acid prices, unless clearly found to be derived from rock phosphate.

Bone is sifted into two grades of fineness: Fine, less than 1.50 inch in diameter; coarse, over 1-50 inch in diameter.

The result obtained by the use of this schedule does not cover the items of mixing, bagging, freight and agents' commission. To cover these, allowances are made as follows:

For freight, an allowance of $2.00 per ton on all fertilizers.

For bagging, an allowance of $1.00 per ton on all fertilizers, except when sold in original packages.

For mixing, an allowance of $1.00 per ton on complete fertilizers and rock-and-potash goods.

For agents' commission, an allowance of 20 per cent. is added to the cash value of the goods ready for shipment.

FERTILIZER ANALYSES JANUARY 1 TO AUGUST 1, 1911.

Since January 1, 1911, there have been received from authorized sampling agents nineteen hundred and sixty-two fertilizer samples, of which seven hundred and thirty-one were subjected to analysis. Preference is given to those which have not been recently analyzed. In cases where two or more samples representing the same brand were received, equal portions from several samples were united, and the composite sample was subjected to analysis.

The samples analyzed group themselves as follows: 485 complete fertilizers, furnishing phosphoric acid, potash and nitrogen; 6 dissolved bones, furnishing phosphoric acid and nitrogen; 129 rock-and potash fertilizers, furnishing phosphoric acid and potash; 51 acidulated rock phosphates, furnishing phosphoric acid only; 23 ground bones, furnishing phosphoric acid and nitrogen, and 37 miscellaneous samples, which group includes substances not properly classified under the foregoing heads.

The determinations to which a complete fertilizer is subjected are as follows: (1) Moisture, useful for the comparison of analyses, for indication of dry condition and fitness for drilling, and also of the conditions under which the fertilizer was kept in the warehouse. (2) Phosphoric acid—total and insoluble; that is, that portion not soluble in water nor in warm ammonium citrate solution (a solution supposed to represent the action of plant roots upon the fertilizer), which is assumed to have little immediate food value. By difference, it is easy to compute the so-called "available" phosphoric acid. (3) Potash soluble in water—most of that present in green sand marl and crushed minerals, and even some of that present in vegetable materials such as cotton-seed meal, not being included because insoluble in water even after long boiling. (4) Nitrogen—This element is determined by a method which simply accounts for all present, without distinguishing between the quantities present in the several forms of ammonium salts, nitrates or organic matter. (5) Chlorin—this determination is made to afford a basis for estimating the proportion of the potash that is present as chlorid or muriate, the cheaper source. The computation is made on the assumption that the chlorin present, unless in excess, has been introduced in the form of muriate of potash; but doubtless there are occasional exceptions to this rule. One part

of chlorin combines with 1.326 parts of potash to form the pure muriate; knowing the chlorin, it is, therefore, easy to compute the potash equivalent thereto. (7) In the case of ground bone, the state of sub-division is determined by sifting through accurately made sieves; the cost of preparation and especially the promptness of action of bone in the soil depend very largely on the fineness of its particles, the finer being much more quickly useful to the plant.

The preceding paragraph sets forth the nature of the examinations given to the several classes of fertilizers under the laws in force prior to the present year. The legislation of 1909 has made needful, however, some additional tests. Sec. 4, of the Act of May 1, 1909, prohibits the sale of "pulverized leather, hair, ground hoofs, horns, or wool waste, raw, steamed, roasted, or in any form, as a fertilizer, or as an ingredient of a fertilizer or manure, without an explicit statement of the fact." All nitrogenous fertilizers have, therefore, been submitted to a careful microscopic examination, at the time of preparing the sample for analysis, to detect the presence of the tissues characteristic of the several materials above named. The act of April 23, 1909, makes it unlawful to use the word "bone" in connection with, or as part of the name of any fertilizer, or any brand of the same, unless the phosphoric acid contained in such fertilizer shall be the product of pure animal bone. All fertilizers in whose name the word "bone" appears, were therefore examined by microscopic and chemical methods to determine, so far as possible with present knowledge, the nature of the ingredient or ingredients supplying the phosphoric acid. It is a fact, however, well known to fertilizer manufacturers and which should be equally understood by the consumer, that it is, in certain cases, practically impossible to determine the source of the phosphoric acid by an examination of the finished fertilizer. The microscope shows clearly the structure of raw bone, but does not make it possible to discriminate between thoroughly acidulated bone and acidulated rock. The ratio of nitrogen to phosphoric acid in a raw bone—and only such bone as has not been deprived of any considerable proportion of its nitrogenous material by some manufacturing process can properly be called "pure animal bone"—is about 1:8; in cases where the ratio of nitrogen to phosphoric acid exceeds 8, it is clear that part, at least, of the phosphoric acid has been supplied by something else than pure animal bone; but, inasmuch as nitrogen may have been introduced in some material other than bone and no longer detectible by the microscope, the presence of nitrogen and phosphoric acid in the proportions corresponding to those of bone is not proof positive that they have been supplied by bone. Finally, the differences in the iron and silica content of bone and rock respectively, afford means of distinction useful

in some cases; the usefulness of this distinction is limited, however, by the facts that kitchen bone frequently contains earthy impurities rich in iron and silica, and that earthy fillers can legally be used in fertilizers and are in fact considerably used therein both as "make-weights" and as "conditioners" or materials introduced to improve the drilling qualities of the goods. The fact that the phosphoric acid in bone and rock are identical in character is probably so well known as to require no detailed consideration in this connection.

The law having required the manufacturer to guarantee the amount of certain valuable ingredients present in any brand he may put upon the market, chemical analysis is employed to verify the guaranties stamped upon the fertilizer sacks. It has, therefore, been deemed desirable in this report to enter the guaranty filed by the manufacturer in the office of the Secretary of Agriculture, in such connection with the analytical results that the two may be compared. An unfortunate practice has grown up among manufacturers of so wording the guaranty that it seems to declare the presence in the goods of an amount of valuable constituent ranging from a certain minimum to a much higher maximum; thus, "Potash, 2 to 4 per cent." is a guaranty not infrequently given. In reality, the sole guaranty is for 2 per cent. The guaranteed amounts given for each brand in the following tables, are copied from the guaranties filed by the maker of the goods with the Secretary of Agriculture, the lowest figure given for any constituent being considered to be the amount guaranteed. For compactness and because no essentially important fact is suppressed thereby, the guaranties for soluble and reverted phosphoric acid have not been given separately, but are combined into a single guaranty for available phosphoric acid; in cases where the maker's guaranty does not specifically mention available phosphoric acid, the sum of the lowest figures given by him for soluble and reverted phosphoric acid is used. The law of 1879 allowed the maker to express his guaranty for nitrogen either in terms of that element or in terms of the ammonia equivalent thereto; since ammonia is composed of three parts of hydrogen and fourteen parts of nitrogen, it is a very simple matter to calculate the amount of one, when the amount of the other is given; the amount of nitrogen multiplied by 1.214 will give the corresponding amount of ammonia, and the amount of ammonia multiplied by 0.824 will give the corresponding amount of nitrogen. In these tables, the expression is in terms of nitrogen. The laws of 1901 and 1909 abolished this alternative and required that the quantity shall be given in terms of nitrogen.

Many manufacturers after complying with the terms of the law, insert additional items in their guaranties, often with the result of misleading or confusing the buyer; the latter will do well to give heed to those items only that are given as the law requires and that are presented in these tables:

A summary of the analyses made this season may be presented as follows:

Summary of Analyses Made this Season.

	Complete fertilizers.	Rock and potash.	Dissolved bone.	Dissolved rock.	Ground bone.
Number of analyses,	485	129	6	51	23
Moisture, per cent.,	9.46	7.30	9.05	9.21	5.50
Phosphoric acid:					
Total, per cent.,	9.86	10.86	13.00	15.93	22,86
Available per cent.,	8.31	9.86	10.24	14.66	----------
Insoluble, per cent.,	1.55	1.00	2.76	1.27	----------
Potash, per cent.,	4.97	3.97	----------	----------	----------
Nitrogen, per cent.,	1.53	----------	1.68	----------	3.10
Mechanical analyses of bone:					
Fine,	----------	----------	----------	----------	50
Coarse,	----------	----------	----------	----------	50
Commercial valuation,	25.95	15.99	23.82	14.26	31.47
Average selling price,	24.97	17.05	20.33	15.83	30.93
Commercial value of samples whose selling price is ascertained,	25.89	15.97	23.82	14.25	31.47

Summary of Instances of Deficiency from Guaranty.

	Complete fertilizers.	Rock and potash.	Dissolved bone.	Dissolved rock.	Ground bone.
Deficient in four constituents,	1	----------	----------	----------	----------
Deficient in three constituents,	12	1	----------	----------	----------
Deficient in two constituents,	59	6	----------	2	----------
Deficient in one constituent,	147	28	1	1	11
Total number of samples in which deficiencies occur,	219	35	1	3	11

The cases of deficiency noted during the past eleven seasons in the composition of goods as compared with their guaranties, expressed in percentage of the total number of goods of each class analyzed, are as follows:

Percentage of Deficiency 1906-1911.

	Spring, 1906.	Fall, 1906.	Spring, 1907.	Fall, 1907.	Spring, 1908.	Fall, 1908.	Spring, 1909.	Fall, 1909.	Spring, 1910.	Fall, 1910.	Spring, 1911.
Complete fertilizers,	45.4	39.5	39.4	39.3	40.0	40.0	39.5	46.3	28.9	35.9	45.1
Dissolved bone,	50.0	28.5	16.6	25.0	‡50.0	16.6	25.0	*	37.5	25.0	16.6
Rock and potash,	42.4	40.0	43.7	49.0	39.0	38.8	36.2	30.4	25.2	37.0	27.1
Dissolved rock,	28.8	25.6	19.5	27.0	21.2	28.5	33.3	19.5	4.3	6.3	5.9
Ground bone,	49.0	14.7	18.5	27.8	38.0	40.0	20.8	38.4	29.17	27.6	47.8
All classes except miscellaneous,	43.8	35.8	36.1	38.9	38.8	38.3	37.6	39.6	26.5	33.5	38.7

*Only two samples analyzed for which no guarantees are reported.
‡Only four samples analyzed.

A comparison of the average composition of all samples of complete fertilizers for which guaranties are recorded with the average of the corresponding guaranties, for several seasons past, including those of this season, follows:

Average Composition and Guaranty Compared.

	Average composition. Per cent.	Average guaranty. Per cent.
Spring, 1906.		
Phosphoric acid:		
Total,	9.73	9.21
Available,	7.88	7.77
Potash,	4.21	3.95
Nitrogen,	1.57	1.53
Fall, 1906.		
Phosphoric acid:		
Total,	10.45	9.70
Available,	8.23	8.16
Potash,	3.12	2.95
Nitrogen,	1.32	1.31
Spring, 1907.		
Phosphoric acid:		
Total,	9.21	8.50
Available,	8.13	7.83
Potash,	4.55	4.31
Nitrogen,	1.52	1.47

Average Composition and Guaranty Compared—Continued.

	Average composition. Per cent.	Average guaranty. Per cent.
Fall, 1907.		
Phosphoric acid:		
Total,	10.39	9.42
Available,	8.34	8.07
Potash,	3.18	2.72
Nitrogen,	1.39	1.29
Spring, 1908.		
Phosphoric acid:		
Total,	10.07	8.91
Available,	8.29	7.61
Potash,	5.04	4.51
Nitrogen,	1.64	1.59
Fall, 1908.		
Phosphoric acid:		
Total,	10.29	9.31
Available,	8.29	7.96
Potash,	3.24	2.94
Nitrogen,	1.24	1.23
Spring, 1909.		
Phosphoric acid:		
Total,	9.83	8.98
Available,	8.07	7.66
Potash,	5.07	4.89
Nitrogen,	1.67	1.60
Fall, 1909.		
Phosphoric acid:		
Total,	10.13	9.34
Available,	8.27	8.08
Nitrogen,	1.33	1.26
Potash,	3.41	3.12
Spring, 1910.		
Phosphoric acid:		
Total,	9.80	8.80
Available,	8.26	7.62
Potash,	5.20	4.68
Nitrogen,	1.63	1.60
Fall, 1910.		
Phosphoric acid:		
Total,	9.72	8.80
Available,	8.26	7.62
Potash,	5.20	4.68
Nitrogen,	1.63	1.60
Spring, 1911.		
Phosphoric acid:		
Total,	9.86	8.96
Available,	8.31	7.86
Potash,	4.97	4.65
Nitrogen,	1.53	1.54

It is of interest to note how closely the series of valuations based upon the wholesale price of raw materials in the principal markets during the most important buying season and upon certain average allowances for expenses and profits on the part of the mixer and jobber coincides with the retail prices later ascertained. A comparison for several seasons past is given below:

Comparison of Selling Price and Valuation, 1906-1911.

	Selling price.	Valuation.	Excess of valuation over selling price.
Complete fertilizers:			
1906, Spring,	23.55	24.76	1.21
Fall,	21.87	22.99	1.12
1907, Spring,	24.60	26.84	2.24
Fall,	22.71	24.59	1.88
1908, Spring,	25.69	26.23	.54
Fall,	22.34	23.88	1.54
1909, Spring,	24.88	25.31	.43
Fall,	22.07	22.25	.14
1910, Spring,	25.26	26.63	1.43
Fall,	21.76	22.24	.48
1911, Spring,	24.97	25.95	.98
Dissolved bone:			
1905, Spring,	23.83	22.70	—1.13
Fall,	24.78	25.85	1.11
1906, Spring,	24.40	22.65	—1.75
Fall,	22.06	25.33	3.27
1907, Spring,	22.28	25.08	2.80
Fall,	22.09	27.01	4.92
1908, Spring,	21.11	23.09	1.98
Fall,	22.48	26.05	3.57
1909, Spring,	22.25	21.57	—.68
Fall,	24.50	22.85	—1.65
1910, Spring,	22.17	21.47	—.70
Fall,	25.80	25.70	—.10
1911, Spring,	20.33	23.82	3.49
Rock and potash:			
1905, Spring,	16.11	15.49	—.62
Fall,	15.97	15.04	—.97
1906, Spring,	16.17	15.19	—.98
Fall,	15.76	15.06	—.70
1907, Spring,	16.94	16.53	—.41
Fall,	16.58	15.82	—.76
1908, Spring,	16.86	16.24	—.62
Fall,	16.43	16.17	—.26
1909, Spring,	16.98	15.94	1.04
Fall,	16.10	15.50	—.60
1910, Spring,	17.16	16.08	—1.08
Fall,	16.38	16.34	—.04
1911, Spring,	17.05	15.99	—1.06
Dissolved rock:			
1905, Spring,	13.64	13.86	.22
Fall,	12.21	13.51	1.30
1906, Spring,	13.75	12.98	—.77
Fall,	13.45	12.99	—.46
1907, Spring,	14.04	14.72	.68
Fall,	14.16	14.67	.51
1908, Spring,	14.72	14.92	.20
Fall,	14.31	14.86	.55
1909, Spring,	14.76	13.62	—1.14
Fall,	13.86	14.02	.16
1910, Spring,	14.56	14.00	—.56
Fall,	14.01	14.15	.14
1911, Spring,	15.83	14.26	—1.58

Comparison of Selling Price and Valuation, 1906-1911—Continued.

	Selling price.	Valuation.	Excess of valuation over selling price.
Ground bone:			
1905, Spring,	29.08	26.72	—2.36
Fall,	27.70	28.70	1.00
1906, Spring,	29.02	28.23	—.79
Fall,	27.80	29.12	1.32
1907, Spring,	31.55	29.64	—1.91
Fall,	28.92	28.80	—.12
1908, Spring,	29.04	28.96	—.08
Fall,	28.18	27.90	—1.28
1909, Spring,	30.70	30.28	—.42
Fall,	29.39	28.71	—.68
1910, Spring,	30.19	30.27	.08
Fall,	29.98	31.10	1.12
1911, Spring,	30.93	31.47	.54

MATERIALS USED IN FERTILIZERS.

The microscopic examination of the nitrogenous fertilizers for leather, hair, and other materials the use of which without notice is prohibited by the Act of May 1, 1909, revealed in no case such quantity of any of these substances as might not fairly be regarded as an accidental trace. No instance has been reported by the sampling agents in which a declaration of the presence of such material has been made. It is, however, a matter of quite general knowledge that substances of this kind are being largely used in fertilizer mixtures; but, in most cases at least, only after such treatment as results in the destruction of the characteristic tissues and, at the same time, wholly or partly in that of the organic compounds originally present. The Pennsylvania Agricultural Experiment Station is now conducting, under the writer's supervision, an investigation to determine the degree to which the acid treatment usually employed improves the availability of the nitrogen in these substances.

In conformity with the requirements of the Act of April 23, 1909, many firms dropped from the brand names of goods manufactured by them the word "bone" hitherto forming part of said names. Where such change in name appears, it may be taken as evidence that the

prosphoric acid is derived, at least in part, from something else than bone. In several cases where the word "bone" remains in the brand name, the composition of the goods makes it clear that the law has been violated. All such cases have been reported for legal action.

ORGANIZATION OF THE WORK.

In conclusion, I would state that the work of the season has been performed under my direction, as follows:

The nitrogen determinations by W. Thomas, B. S.; those of total phosphoric acid by J. W. White, B. S.; of insoluble phosphoric acid by H. D. Edmiston and L. G. Willis, B. S.; of potash, by E. S. Erb, M. S.; and the preparation of samples, care of records, and the detail of the compilation of this bulletin, by G. C. Given, M. S. To these trained and experienced assistants, my acknowledgments are due for loyal and efficient service.

COMPLETE

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
	AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK.				
788	†Complete Manure with 10 per cent. Potash.	Richard Graves, Jerwyn,	9.44	7.14	6.00
878		William W. Kramer, Powell,			
1334	†High Grade Potash Compound,	E. D. Everett Co., Warren,	10.21	8.54	8.00
558		S. S. Creese, New Galilee,			
1824		D. E. Zener, Tamaqua,			
500	†Peerless Corn and Grain Grower,	E. H. Carl, Coopersburg,	9.49	8.75	8.00
786		Richard Graves, Jerwyn,			
789	Potato Phosphate,	Richard Graves, Jerwyn,	9.59	8.11	8.00
645	†Special Potash Mixture,	John W. Buckman, Newtown,	9.97	9.24	9.00
612		J. A. Romberger, Elizabethville,			
1632		E. E. Weter, Sligo,			
857	†Superior Compound,	Calvin Strong, Ansonville,	11.58	9.00	8.00
1899		James L. Culp, Indiana,			
364	†10 Per Cent. Potash Mixture for Potatoes.	R. T. Bergstresser, Hellertown,	8.94	5.79	5.00
79		Geo. E. Detrick, York Springs.			
593		F. P. Spring, Lairdsville,			
10	†Top Dresser for Grass,	John H. Reed, Roedersville,	9.48	8.34	8.00
1386		Roy Ackley, Sabinsville,			
1234	†Wheat and Haymaker,	W. J. Warwick, Narrowsburg, N. Y.,	8.75	10.13	10.00
1310		O. L. Schambacker, East Point.			
801	†Bradley's B. D. Sea Fowl Guano,	Eli Yost, McEwensville,	10.81	8.67	8.00
776		T. W. Atkinson, Clifford,			
1637		J. H. Sheffer, Knox,			
358	†Bradley's Bean & Potato Phosphate,	Geo. R. Andrews, Enon Valley.	10.34	*7.60	8.00
66		J. E. Lynch, Friendsville,			
687		Punxsutawney Planing Mill Co., Punxsutawney.			
355	†Bradley's Dissolved Phosphate and Potash.	Geo. R. Andrews, Enon Valley.	11.19	8.83	8.00
207		Schultz & Pardoe, Franklin,			
1639		J. H. Sheffer, Knox,			
686	†Bradley's Niagara Phosphate,	Punxsutawney Planing Mill Co., Punxsutawney.	9.66	7.65	7.00
136		Bish Lansberry, Woodland,			
719		John P. Jones Hdw. Co., Summerville.			
443	†Canton Chemical C. C. C. Special Compound.	W. B. Whinney, Middleburg,	12.06	8.22	8.00
229		W. S. Weaver & Son, Easton, Pa.			
1483		Marion Warehouse Co., Marion.			
591	†Canton Chemical Eagle Phosphate,	F. P. Spring, Lairdsville,	10 57	7.65	7.00
298		Thomas Kramer, Schuylkill Haven.			
648		John B. Buckman, Newtown,			
297	†Canton Chemical Potato Manure,	Thomas Kramer, Schuylkill Haven.	10.30	7.00	6.00
230		W. S. Weaver & Son, Easton, Pa.			
1374		Rose & McDowell, Mansfield,			
644	†Canton Chemical Resurgam Guano,	John B. Buckman, Newtown,	13.21	8.76	8.00
317		J. D. Neff, Larryscreek,			
1329		Gallupp & Co., Port Allegany			

†Composite sample.

FERTILIZERS.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.		Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.			
1.22	8.36	7.00	10.15	--------	10.15	10.00	3.24	3.29	38.22	† 34.00	788
										36.00	878
1.21	9.75	9.00	1.60	8.32	9.92	10.00	1.45	1.65	32.25	34.00	1334
										28.00	588
										--------	1824
1.54	10.29	9.00	5.32	--------	5.32	5.00	1.71	1.65	27.64	†24.00	50[illegible]
										24.00	78[illegible]
1.73	9.84	9.00	5.09	--------	5.09	5.00	1.90	1.65	27.84	28.00	78[illegible]
										30.00	645
1.02	10.26	10.00	5.61	--------	*5.61	7.00	.90	.82	25.54	†23.00	612
										26.00	1632
1.71	10.71	9.00	3.99	--------	3.99	4.00	1.61	1.65	26.16	† 26.00	857
										28.00	1899
										30.00	364
.87	6.66	6.00	10.01	--------	10.01	10.00	1.64	1.65	28.85	† 25.75	79
										26.00	593
1.21	9.55	9.00	5.05	--------	5.05	5.00	*4.42	4.94	40.00	†39.00	10
										40.00	1386
4.84	14.97	11.00	8.78	--------	*8.78	10.00	1.66	1.65	33.97	†35.00	1234
										--------	1310
										22.00	801
1.63	10.30	9.00	1.94	--------	1.94	1.50	1.89	2.06	25.12	†25.50	776
										30.00	1637
										24.00	358
1.13	*8.73	9.00	4.63	--------	4.63	4.00	1.04	.82	22.48	†24.00	66
										24.00	687
										23.00	355
1.24	10.07	9.00	2.21	--------	2.21	2.00	*.37	1.03	20.35	†27.00	207
										26.00	1639
										20.00	686
1.30	8.95	8.00	1.58	--------	1.58	1.00	.98	.82	19.26	†20.00	136
										20.00	719
										30.00	443
1,21	9.43	9.00	5.67	--------	*5.67	6.00	1.95	2.06	28.51	†30.00	229
										27.00	1483
										18.00	591
1.57	9.22	8.00	1.33	--------	1.33	1.00	.89	.82	18.64	†18.00	298
										26.00	648
										23.00	297
1.58	8.58	7.00	4.83	--------	4.83	5.00	1.17	1.23	22.77	†30.00	230
										25.00	1374
										30.00	644
1.38	10.14	9.00	4.18	--------	4.18	4.00	.88	.82	22.60	†22.00	317
										26.00	1329

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
442 299 592	†Canton Chemical Baker's Special Wheat, Corn and Grass Mixture.	W. B. Whinney, Middleburg, Thomas Kramer, Schuylkill Haven. F. P. Spring, Lairdsville,	11.45	9.57	9.00
778	Clark's Cove King Philip's Alkaline Guano.	G. W. Cooperwaite, Jerwyn,	10.75	8.20	8.00
1819	Clark's Cove Potato & Hop Grower,	W. F. Landig, Ringtown,	6.63	7.09	6.00
936 1309	†Crocker's Ammoniated Superphosphate.	D. B. Moses, Sprnigboro, O. L. Shambacker, East Point.	10.87	9.25	9.00
570 290 673 571 202 862	†Crocker's Complete Manure, †Crocker's General Crop Fertilizer,	E. E. Trilby, West Middlesex, W. H. Riland, Friedensburg, S. P. Marsh, Ten Mile Bottom. J. W. Hartwell, New Wilmington. H. B. Mitchell & Co., Emleton. C. O. Salsburg, Ridgway,	11.07 8.97	8.47 7.95	8.00 7.00
289	Crocker's Potato, Hop and Tobacco Fertilizer.	W. H. Riland, Friedensburg,	10.67	9.12	8.00
858 216 1631	†Crocker's Universal Grain Grower,	Calvin Strong, Ansonville, S. P. Marsch, Ten Mile Bottom. E. E. Weeter, Sligo,	10.68	9.13	8.00
856 931	†Crocker's Wheat & Corn Fertilizer,	Calvin Strong, Ansonville, Edgar Waters, Jamestown,	10.87	8.55	8.00
1416 1264 1563	†Detrick's Corn & Oats Fertilizer,	D. A. Grove, Lemont. C. M. Honeywell, Dallas, B. F. Horting, Newport,	9.81	9.34	9.00
193 1439	†Detrick's Imperial Compound,	B. F. Shannon & Co., Butler Geo. B. Murphy, Red Lion,	12.12	8.79	8.00
1438 794 1835	†Detrick's K. K. K. Kangaroo Komplete Kompound.	Geo. B. Murphy, Red Lion, H. L. Lindner, Milton, R. D. 1. Geo. D. Solt, Andreas,	12.68	8.48	8.00
1166	Detrick's Paragon Ammoniated Phosphate & Potash.	Joseph Joshenour, Bermudian,	11.96	7.50	7.00
42	Detrick's Quick Step Phosphate,	James McCoulley, Mifflintown,	11.31	8.68	8.00
600 1583	†Detrick's Standard Potash Fertilizer,	Eli Yost, Turbotville, Levi Birkey, Somerset,	9.32	6.94	6.00
1297 147 1697	†Great Eastern High Grade Cabbage Grower.	Saul Manley, Granville Summit. J. A. Gummo, Mill Hall, R. D. 1. J. Detrick, Milford,	9.89	9.77	9.00
1739	Great Eastern General,	William J. Johnston, Sinking Springs.	11.50	9.16	8.00
1240 1737	†Great Eastern High Grade Vegetable, Vine & Tobacco Fertilizer.	W. Avery, Honesdale, William J. Johnston, Sinking Springs.	11.62	8.57	8.00
1736	Great Eastern Northern Corn Special,	William J. Johnston, Sinking Springs.	12.55	9.38	9.00
968	Lazaretto Ammoniated Phosphate,	Gonser Bros., Snydertown,	11.92	8.67	8.00
1444	Lazaretto Special Potato Fertilizer,	Grove & Uffelman, Brogueville Station.	12.38	8.34	8.00
483	Maryland O. K. Ammoniated Fertilizer,	Samuel Heim, Pitman,	11.06	9.11	8.00
398 1305	†Maryland Special Compound for Potatoes and Tobacco.	J. H. Edinger, Luthersburg, W. L. & M. R. Miller, Gleason.	12.40	8.82	8.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.				
	Total.				Total.						
Insoluble.			Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.	Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
1.33	10.90	10.00	2.19	--------	2.19	2.00	.89	.82	21.36	20.00 †20.00	442 299
2.42	10.62	9.00	2.90	--------	2.90	2.00	1.36	1.03	23.36	20.00 20.50	592 778
1.36	8.45	7.00	5.07	--------	5.07	5.00	1.12	1.23	22.72	24.00	1819
1.06	10.31	10.00	2.62	--------	2.62	2.00	2.41	2.47	28.51	† 28.00 ---------	936 1309
1.17	9.64	9.00	4.32	--------	4.32	4.00	1.04	.82	23.06	23.50 † 20.75 26.00	570 299 673
1.36	9.31	8.00	1.85	--------	1.85	1.00	.95	.82	19.60	23.00 21.00 25.00	571 202 862
.99	10.11	9.00	3.50	--------	3.50	3.00	2.01	2.06	27.34	25.00	289
1.39	10.52	9.00	2.23	--------	2.23	2.00	.86	.82	20.78	22.00 †26.00	858 216
1.75	10.30	9.00	2.18	--------	2.18	1.50	*1.53	2.06	23.65	22.00 †25.00 23.00	1631 836 931
1.11	10.45	10.00	3.18	--------	3.18	3.00	.89	.82	22.05	--------- †24.00 18.50	1416 1264 1593
1.12	9.91	9.00	2.16	--------	2.16	2.00	.84	.82	20.18	†21.00 17.00 20.00	193 1439 1438
1.43	9.82	9.00	3.23	--------	3.23	3.00	1.60	1.65	24.72	†21.00 26.00	794 1835
1.36	8.86	8.00	1.35	--------	1.35	1.00	.88	.82	18.40	17.50	1166
1.21	9.89	9.00	4.21	--------	4.21	4.00	2.43	2.47	29.90	28.00	42
.85	7.79	7.00	5.24	--------	5.24	5.00	1.28	1.23	23.49	†21.50 21.00	600 1583
1.68	11.45	10.00	7.02	--------	7.02	7.00	.79	.82	26.14	28.00 †24.00 25.00	1297 147 1697
1.10	10.26	9.00	4.13	--------	4.13	4.00	1.00	.82	23.30	22.00	1739
1.73	10.30	9.00	4.63	--------	4.63	3.00	2.07	2.06	28.54	†30.00 25.00	1240 1737
1.47	10.85	10.00	2.63	--------	2.63	2.00	2.02	2.47	26.98	26.00	1736
1.15	9.82	9.00	2.19	--------	2.19	2.00	.95	.82	20.58	---------	968
1.17	9.51	9.00	4.49	--------	4.49	4.00	.81	.82	21.91	18.75	1444
1.17	10.28	9.00	2.59	--------	2.59	2.00	.90	.82	21.26	---------	483
1.28	10.10	9.00	10.16	--------	10.16	10.00	1.69	1.65	32.53	†31.00 30.00	398 1305

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
419	Michigan Carbon Works General Potato Fertilizer.	E. M. Tingley, Harford,	11.92	9.06	8.00
574	Milsom's Buffalo Fertilizer,	John T. Crill, Mercer,	11.64	8.51	8.00
709 400 1780	†Milsom's Buffalo Guano,	McCanley, McKay & Co., Brockwayville. J. H. Edinger, Luthersburg, Iseman Carriage Co., Clarion.	12.56	8.94	8.00
882	Milsom's Corn Fertilizer,	Willard Arnold, Granville,	12.71	9.50	9.00
708	Milsom's Erie King Fertilizer,	McCawley, McKay & Co., Brockwayville.	8.46	8.09	7.00
223 1335	†Milsom's Vegetable Fertilizer,	W. H. Mitman, Easton, R. D. 4., E. D. Everett Co., Warren,	11.70	8.55	8.00
572 132 707	†Milsom's Wheat, Oats & Barley Fertilizer.	John . Crill, Mercer, J. W. Eberts & Co., Clearfield, McCawley, McKay & Co., Brockwayville.	9.62	8.66	8.00
1018 1482	Moro-Phillips' Farmers Potato Mixture	J. Irvin Goss, Painter, Diehl, Omwake & Diehl, Chambersburg.	10.59	6.56	6.00
1355 1804	†Moro-Phillips' 10 per cent. Potato & Vegetable Manure.	H. F. Rittenhouse, Willow Grove. Cornelius Bachman, Sugar Loaf.	9.96	8.12	8.00
922	Northwestern Complete Compound,	Greenville Coal & Ice Co., Greenville.	11.22	8.94	8.00
921 1549	†Northwestern High Grade General Fertilizer.	Greenville Coal & Ice Co., Greenville, Jefferson Altfather, Berlin,	12.69	9.06	8.00
691 1689	†Pacific A No. 1 Phosphate,	J. O. Campbell, Big Run, Reuben Mitman, Perkasie,	10.46	8.55	7.00
690 135 1271	†Pacific Potato Phosphate,	J. O. Campbell, Big Run, Bish Lansberry, Woodland, John P. Jones Hardware Co., Summerville.	11.70	6.47	6.00
940 599 953	†Packer's Union Animal Corn Fertilizer	C. E. Star, Three Springs, R. D. 2, James Bannen, Turbottsville, R. D. C. S. Brown, Mill Creek,	10.22	9.15	9.00
1241	Packer's Union Gardener's Complete Manure.	W. Avery, Honesdale,	7.71	6.71	6.00
1698	Packer's Union Potato Manure,	J. Detrick, Milford,	10.85	8.82	8.00
954 1696	†Packer's Union Universal Fertilizer,	C. S. Brown, Mill Creek, R. D., J. Detrick, Milford,	10.34	7.98	8.00
1865 502 1900	†Quinnipiac Mohawk Fertilizer,	J. E. Bossard, Siegfried, R. D. 1. E. H. Carl, Coopersburg, James S. Culp, Indiana,	11.47	7.37	7.00
1311	Read's Farmers Friend Superphosphate,	O. L. Shambacker, East Point	13.43	9.58	8.00
35	Read's Leader B & B Fertilizer,	W. V. Shirk, Oakland Mills,	10.74	7.47	7.00
37	Read's Standard Superphosphate,	W. V. Shirk, Oakland Mills,	11.01	8.16	8.00
1645	Reese's Ammoniated Phosphate Mixture	Harry Wilson, Frazer,	10.50	9.51	9.00
1266 1214 1676	†Reese's Potato Manure,	C. M. Honeywell, Dallas, Milton Neuman, York, Isaac W. Holcomb, New Hope	9.08	9.38	9.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.				
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.	Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
.86	9.92	9.00	9.47	--------	*9.47	10.00	1.67	1.65	31.59	30.00	419
1.63	10.14	9.00	1.95	--------	1.95	1.50	*1.71	2.06	24.02	24.00	574
										24.00	709
1.36	10.30	9.00	3.99	--------	3.99	4.00	.91	.82	22.58	†23.00	400
										25.00	1780
1.85	11.35	10.00	2.54	--------	2.54	2.00	2.51	2.47	29.59	26.50	882
1.34	9.43	8.00	1.15	--------	1.15	1.00	.80	.82	18.33	21.00	708
1.53	10.08	9.00	6.09	--------	*6.09	7.00	3.10	3.29	34.98	†32.00	223
										40.00	1335
										21.00	572
1.12	9.78	9.00	4.88	--------	4.88	2.00	1.10	.82	34.03	†25.00	132
										23.00	707
1.06	7.62	7.00	5.25	--------	5.25	5.00	1.34	1.23	23.42	24.00	1018
										27.00	1482
1.64	9.76	9.00	9.69	--------	*9.69	10.00	1.64	1.65	31.28	†--------	1355
										29.83	1804
1.15	10.09	9.00	4.61	--------	4.61	4.00	1.02	.82	23.58	22.00	922
1.02	10.08	9.00	4.23	--------	4.23	4.00	1.59	1.65	26.14	†26.00	921
										24.00	1579
1.15	9.70	8.00	1.50	--------	1.50	1.00	1.02	.82	20.01	†22.00	691
										--------	1689
										28.00	690
.85	7.32	7.00	5.61	--------	5.61	5.00	1.04	1.23	22.14	†24.00	135
										24.00	1271
										28.00	940
1.66	10.81	10.00	2.14	--------	2.14	2.00	*2.26	2.47	27.52	†26.00	599
										26.00	953
1.59	8.30	7.00	10.38	--------	10.38	10.00	3.36	3.29	38.65	40.00	1241
1.95	10.77	9.00	5.87	--------	5.87	6.00	2.00	2.06	29.88	32.00	1698
1.77	9.75	9.00	4.07	--------	4.07	4.00	.79	.82	21.37	†20.00	954
										25.00	1696
										18.00	1865
1.54	8.91	8.00	1.31	--------	1.31	1.00	.82	.82	17.82	†19.00	502
										20.00	1900
.54	10.12	9.00	3.25	--------	3.25	3.00	2.06	2.06	27.56	30.00	1311
.92	8.39	8.00	1.45	--------	1.45	1.00	.84	.82	18.01	17.50	35
.80	8.96	9.00	3.10	--------	*3.10	4.00	.80	.82	20.11	19.50	37
1.24	10.75	10.00	3.20	--------	3.20	3.00	.88	.82	22.28	22.00	1645
										30.00	1266
1.52	10.90	10.00	7.26	--------	7.26	7.00	.84	.82	26.18	†22.80	1214
										28.00	1676

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
309 1000	†Sharpless & Carpenter's Dissolved Fertilizer for Potatoes & General Use.	W. E. Knerr, Rough & Ready, A. B. Shoemaker, Tullytown,	11.33	8.57	8.00
561 310 1389	†Sharpless & Carpenter's Farmers Brand Phosphate.	Farmers Supply Co., New Castle. W. E. Knerr, Rough & Ready. J. L. Seagers, Westfield,	13.12	8.86	8.00
410 319 971	†Sharpless & Carpenter's Gilt Edge Potato & Tobacco Manure.	J. C. Harrington, Montrose Mills. William Bardo, Larrys Creek, N. G. Adams, Paxinos,	10.04	8.33	8.00
1250 1668	†Sharpless & Carpenter's No. 1 Brand Phosphate.	Jonas Kunkle, McKeansburg, A. B. Shoemaker, Tullytown,	11.90	8.25	8.00
1945	Sharpless & Carpenter's No. 2 for Grain and Grass.	J. L. Seagers, Westfield,	12.48	7.34	7.00
363 63 437	†Sharpless & Carpenter's Potato, Corn and Truck Guano.	A. L. Burgstresser, Hellertown. John A. Williams, Friedensville Jonathan Keiser, Thompsontown.	9.90	6.50	6.00
1667	Sharpless & Carpenter's Soluble Tampico Guano.	A. B. Shoemaker, Tullytown,	9.96	8.82	8.00
177 159 1169	†Susquehanna Ammoniated Phosphate	Caleb Allen, Jennersville, J. N. Getz Co., Lock Haven, Henry Sunday, East Berlin,	11.38	8.13	8.00
436 308 544	†Susquehanna Crop Grower,	B. F. Gaymon, Thompsontown. Harry Shadel, Klingerstown, J. Warren Imler, Imler,	9.90	7.72	7.00
1075	Susquehanna High Grade Truck Mixture.	Ed. Schmaltz, Richland,	8.75	7.15	6.00
161 176	†Susquehanna Potato Phosphate,	J. N. Getz Co., Lock Haven, Caleb Allen, Jennersville,	11.06	8.50	8.00
1079 114 1754	†Susquehanna Special Potato & Tobacco Manure.	Henry Moyer, Campbelltown, Z. Z. Peters, Guernsey Station. A. K. Stoltzfus, Morgantown,	10.44	8.26	8.00
307 160 1011	Susquehanna XXV Phosphate,	Harry Shadel, Klingerstown, J. N. Getz Co., Lock Haven, J. P. Klingler, Middleburg, R. D.	10.73	8.42	8.00
1148	Allen's Popular Phosphate,	W. F. Meridith, Ship Road,	13.22	8.92	8.00
516	Allen's Special for Wheat and Grass,	Chas. Blyler, Sipestown,	11.04	7.75	7.00
1149	Tygert Allen's Standard Brand Phosphate.	W. F. Meridith, Ship Road,	10.55	8.80	8.00
1841	Tygert Allen's Star Potato Grower,	Greenawalt & Benninghoff, Tripoli.	7.16	6.26	6.00
53 149	†Wheeler's Corn Fertilizer,	H. B. Shaffee, Potterville, J. A. Gummo, Mill Hall, R. D. 1.	10.64	8.72	8.00
150	Wheeler's Potato Manure,	J. A. Gummo, Mill Hall, R. D. 1.	12.55	8.09	8.00
657	Williams & Clark's American Special High Grade Fertilizer.	H. A. Crossdale, Delaware Water Gap,	8.22	9.63	8.00
656	Williams & Clark's Americus Universal Fertilizer.	H. A. Crossdale, Delaware Water Gap,	12.00	9.23	8.00
655 501 1328	†Williams & Clark's Good Grower Potato Phosphate.	H. A. Crossdale, Delaware Water Gap. E. H. Carl, Coopersburg, Gallupp & Co., Port Allegany.	9.64	7.00	6.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.				
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.	Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
1.21	9.78	9.00	6.33	--------	6.33	6.00	2.06	2.06	30.07	†26.50	309
										26.00	1666
										24.00	561
1.02	9.88	9.00	4.04	--------	4.04	4.00	.88	.82	22.38	†20.50	310
										26.00	1389
										32.00	410
1.47	9.80	9.00	9.99	--------	9.99	10.00	1.65	1.65	31.74	†--------	319
										32.00	971
1.50	9.75	9.00	2.59	--------	2.59	2.00	1.68	1.65	24.34	23.00	1250
										25.00	1668
1.34	8.68	8.00	1.65	--------	1.65	1.00	.84	.82	18.31	22.00	1945
										24.00	363
1.24	7.74	7.00	5.23	--------	5.23	5.00	1.32	1.23	23.23	†28.00	63
										20.00	437
1.34	10.16	9.00	6.92	--------	6.92	7.00	3.22	3.29	36.43	35.00	1667
										22.00	177
1.11	9.24	9.00	2.30	--------	2.30	2.00	1.59	1.65	23.28	†26.00	159
										22.00	1169
										17.50	436
.96	8.68	8.00	1.42	--------	1.42	1.00	.92	.82	18.51	†20.00	308
.83	7.98	7.00	10.78	--------	10.78	10.00	*3.08	3.29	38.00	18.50	544
										35.00	1075
1.13	9.63	9.00	5.11	--------	5.11	5.00	1.58	1.65	26.52	28.00	161
										24.00	176
										--------	1079
1.34	9.60	9.00	10.04	--------	10.04	10.00	1.60	1.65	31.39	†27.00	114
										--------	1754
1.08	9.50	9.00	1.40	--------	1.40	1.00	.84	.82	19.00	22.00	307
										†24.00	160
										--------	1011
1.28	10.20	9.00	2.80	--------	2.80	2.00	.82	.82	20.80	19.00	1148
2.03	9.78	8.00	1.14	--------	1.14	1.00	.85	.82	18.55	19.00	516
1.35	10.15	9.00	3.15	--------	3.15	2.00	1.72	1.65	25.40	22.00	1149
2.19	8.45	7.00	4.90	--------	4.90	5.00	*.91	1.23	21.19	22.00	1841
1.21	9.93	9.00	2.40	--------	2.40	2.00	1.65	1.65	24.27	†21.00	53
										24.00	149
1.59	9.68	9.00	3.03	--------	3.03	3.00	2.05	2.06	26.38	25.00	150
.89	10.52	9.00	7.39	--------	7.39	7.00	3.27	3.29	37.77	31.55	657
.71	9.94	9.00	2.37	--------	2.37	2.00	1.68	1.65	24.73	20.00	656
										20.00	655
1.25	8.25	7.00	5.27	--------	5.27	5.00	1.26	1.23	23.49	†25.00	501
										28.00	1328

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
354	Williams & Clark's Prolific Fertilizer,	**Frank Thompson, Beaver Falls Pa.**	**8.60**	**6.97**	**7.00**
1562	Zell's Economizer Phosphate,	B. F. Horting, Newport,	10.47	8.30	8.00
1155 9 1793	†Zell's Little Giant,	O. F. Arnold, Dillsburg, John H. Reed, Roedersville, Ohio Pyle Co., Ohio Pyle,	10.04	7.86	7.00
1154 1387	†Zell's Special Compound for Potatoes and Vegetables.	O. F. Arnold, Dillsburg, Roy Ackley, Sabinsville,	10.80	8.64	8.00
	AMERICAN FERTILIZER CO., BALTIMORE, MD.				
38 733	†American Champion Grain Grower,	John Siever, Mifflintown, Lancaster Co. Farmers' Association, West Willow.	9.96	8.82	8.00
40 732	†American Prize Truck Guano,	John Siever, Mifflintown, Lancaster Co. Farmers' Association, West Willow.	9.05	8.46	8.00
41 897	†American Special Compound Guano,	John Siever, Mifflintown, Jones Eavenson, Christiana,	8.57	7.84	7.00
	AMERICAN REDUCTION CO., PITTSBURGH, PA.				
559 1285	†Common Sense,	W. M. Tyson, Scarbogh Klass Co., Pittsburg	5.57	*6.75	7.00
	ARMOUR FERTILIZER WORKS, INC., BALTIMORE, MD.				
1704 513 1786	†Crop Grower,	Kemmerer Co., Lehighton, Frank P. Barr, Sipestown, E. T. Denny & Co., Waynesburg.	10.24	8.08	8.00
1408	Blood, Bone, and Potash,	J. F. Chisholm, McKean,	7.23	8.07	8.00
326 49 1539	†5 Per Cent. Trucker,	S. G. Updegraff, Williamsport. Lot Shoemaker, Nichols, N. Y. J. H. Frank, Bellgrove,	8.43	8.42	8.00
253 50 324	†High Grade Potato,	Saul Brinser, Middletown, Lot Shoemaker, Nichols, N. Y., S. G. Updegraff, Williamsport.	9.57	8.09	8.00
295	Royal Ammoniated,	**Heffner & Luckenbill, Friedensburg.**	**8.30**	**8.60**	**8.00**
1295 1230 1399	†Superior,	James W. Merritt, Granville Summit. J. I. Yetter, Saylorsburg, F. G. Mohring, North Girard,	7.50	8.40	8.00
714 296 846	†Wheat, Corn & Oats Special,	B. W. Fetzer, Brookville, Heffner & Luckenbill, Friedensburg, Heebner, Hoover & Co., DuBois.	7.36	7.66	7.00
1228 908 1296	†Wheat and Grass Special,	J. I. Yetter, Saylorsburg, J. G. Walker & Sons Co., Gap, James W. Merritt, Granville Summit.	8.56	7.80	7.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.		Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.			
.98	7.95	8.00	1.23	--------	1.23	1.00	.94	.82	17.80	20.00	354
1.49	9.79	9.00	2.26	--------	2.26	2.00	.96	.82	20.44	17.00	1562
1.29	9.15	8.00	1.50	--------	1.50	1.00	.90	.82	18.88	18.50 †17.00	1155 9
1.02	9.66	9.00	4.16	--------	4.16	4.00	2.51	2.47	29.94	24.00 †22.00 30.00	1793 1154 1387
1.42	10.24	9.00	4.32	--------	4.32	4.00	1.02	.82	23.29	†20.00 17.50	38 733
1.25	9.71	9.00	10.11	--------	10.11	10.00	1.52	1.65	31.12	†27.00 25.00	40 782
1.15	8.99	8.00	3.39	--------	3.39	3.00	.58	.41	19.30	†16.00 17.00	41 897
2.44	9.19	8.00	1.81	--------	1.81	1.00	1.11	1.23	18.56	†18.00 20.00	559 1285
1.15	9.23	8.50	2.37	--------	2.37	2.00	.78	.82	19.96	22.00 †19.00	1704 513
12.89	20.96	8.50	5.78	--------	*5.78	7.00	*3.08	4.11	39.60	23.00 40.00	1786 1408
.70	9.12	8.50	5.73	1.52	7.25	7.00	3.92	4.11	39.69	40.00 †38.00	326 49
.65	8.74	8.50	10.05	--------	10.05	10.00	1.48	1.65	30.43	40.00 27.25 †30.00	1539 253 50
.64	9.24	8.50	4.14	--------	4.14	4.00	.90	.82	22.04	32.00 23.00	324 295
.94	9.34	8.50	7.15	--------	7.15	7.00	.92	.82	25.04	24.00 †23.00 25.00 22.00	1295 1230 1399 714
.82	8.48	7.50	1.10	--------	1.10	1.00	.83	.82	17.85	†21.00 22.00 20.00	296 846 1228
.64	8.44	7.50	5.56	--------	5.56	5.00	.96	.82	22.89	†20.00 22.00	908 1296

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
	ATLANTIC FERTILIZER CO., THE, BALTIMORE, MD.				
105	Atlantic Standard Compound,	Biglerville Warehouse Co., Biglerville.	10.47	8.75	8.00
602 1449	†Arrow Brand Special,	J. C. Lebo, Millersburg, J. H. Bartenslager, Stewartstown.	7.56	9.13	8.00
1441	Gold Medal Superior for All Crops,	Grove & Uffleman, Brogueville Station,	9.11	8.58	8.00
1442	Royal Potato and Tomato Manure,	Grove & Uffleman, Brogueville-Station,	7.10	*6.68	7.00
	R. S. AUCKER, SHAMOKIN, PA.				
998	Grade B. Bone and Slaughterhouse Phosphate.	J. A. Hendricks & Son, Selinsgrove.	6.83	*8.29	8.71
995	Grade D, Bone and Slaughterhouse Phosphate.	J. A. Hendricks & Son, Selinsgrove.	7.49	9.15	8.99
996	High Grade Bone and Slaughterhouse Phosphate.	J. A. Hendricks & Son, Selinsgrove.	5.94	10.16	9.73
997	High Grade Potash Ammoniated Potato & Truck Phosphate.	J. A. Hendricks & Son, Selinsgrove.	7.54	9.05	8.20
	WILLIAM C. BALL, MEDIA, PA.				
1661	Ball's Potato Manure,	William C. Ball, Media,	10.53	7.06	7.00
1662	Ball's $25.00 Goods,	William C. Ball, Media,	12.63	8.67	8.00
	J. H. BARTENSCHLAGER, STEWARTSTOWN, PA.				
1448	Bartenschlager's Potato, Tobacco and Vegetable Compound.	J. H. Bartenschlager, Stewartstown.	6.92	*6.72	8.00
	BAUGH & SONS CO., PHILADELPHIA, PA.				
945 389 1035	†Baugh's Ammoniated Soluble Alkaline	L. J. Meyers, Orbisonia, J. W. Gearhart, Blue Ball, Allison & Fogelsonger, Shippensburg.	7.03	8.59	8.00
1964	†Baugh's Animal Base & Potash Compound.	A. Cook & Co., Dillsburg,	6.20	8.48	8.00
1142	Baugh's Balanced Plant Food. (A superior fertilizer for general use.)	John H. McGowan, Elverson,	11.34	11.87	10.50
1052	Baugh's Commercial Superphosphate (for general use.)	J. A. Miller, Oakville,	7.15	*7.11	8.00
402 157 625 608	†Baugh's Complete Animal Base Fertilizer.	Jonas Shaffer, Luthersburg, E. H. Hays, Lamar, W. E. Erwin, Somerton, J. A. Romberger, Elizabethville.	8.32	8.67	8.00
99 626	†Baugh's Double Eagle $25.00 Phosphate.	N. D. & Z. F. Brean, Gettysburg. W. E. Erwin, Somerton,	9.60	9.28	8.50
188 127 403	†Baugh's Excelsior Guano,	E. H. Keen, Parkesburg, Routch & Swartzel, Clearfield, Jonah Shaffer, Luthersburg,	8.00	8.90	8.00
331 100 495	†Baugh's General Crop Grower (for all Crops.)	Hermon Keeller, Montoursville **N. D. & Z. F. Brean, Gettysburg.** S. K. Mohr, Coopersburg,	**6.25**	**7.87**	**8.00**
1455 1941	†Baugh's Grand Rapid High Grade Truck Guano.	James Fulton & Sons Co., Stewartstown. H. L. Stultz, Hollidaysburg,	8.75	8.33	8.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.				
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.	Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
2.46	11.21	9.00	2.64	--------	2.64	2.00	*1.34	1.65	23.68	21.00	105
1.11	10.24	9.00	4.29	--------	4.29	4.00	.77	.82	22.26	†22.00	602
										20.00	1449
1.29	9.87	9.00	3.18	--------	3.18	3.00	1.90	1.65	26.16	20.75	1441
1.66	8.34	8.00	5.95	--------	5.95	5.00	1.67	1.65	26.02	22.50	1442
2.74	11.03	10.67	3.78	--------	3.78	3.06	*1.08	1.61	23.35	26.00	998
2.23	11.38	9.60	3.25	--------	3.25	3.39	1.06	1.20	23.17	22.00	995
2.23	12.39	11.69	4.51	--------	4.51	3.30	1.86	1.61	29.28	30.00	996
1.91	10.96	8.75	5.01	--------	5.01	4.90	*.75	1.20	23.24	19.00	997
1.15	8.21	--------	8.58	--------	*8.58	10.00	*1.15	1.44	26.43	29.00	1661
.82	9.49	--------	5.73	--------	5.73	5.00	.77	.82	23.13	24.00	1662
2.40	9.12	9.00	5.76	--------	5.76	5.00	*1.25	1.65	24.26	23.00	1448
										18.75	945
.54	9.13	--------	2.75	--------	2.75	2.00	.62	.41	19.12	†18.00	389
										17.00	1035
1.02	9.50	--------	2.31	--------	2.31	2.00	1.86	1.65	24.79	21.75	1964
1.11	12.98	--------	6.82	--------	6.82	7.00	1.55	1.65	31.39	27.00	1142
1.21	8.32	--------	6.93	2.43	*9.36	10.00	*1.40	1.65	28.92	28.00	1052
										26.00	402
1.36	10.03	--------	5.19	--------	5.19	5.00	1.64	1.65	27.09	†26.50	157
										27.00	625
										21.00	603
1.80	11.08	--------	1.36	--------	1.36	1.00	1.73	1.65	23.61	†23.00	99
										24.00	626
										20.00	188
1.30	10.20	--------	4.79	--------	4.79	4.00	1.03	.82	24.04	†23.00	127
										22.00	403
										19.00	331
1.03	8.90	--------	1.41	--------	1.41	1.00	1.01	.82	19.17	†19.50	100
										20.00	495
.87	9.20	--------	3.60	--------	3.60	3.00	2.34	2.47	28.28	†25.00	1455
										32.00	1941

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
868 1678	†Baugh's Peruvian Guano Substitute (For Potatoes and all Vegetables,)	C. S. Richards, Ransom, Wm. Hobensack, Ivyland,	8.41	7.22	6.00
867	Baugh's Potato & Truck Special for all Truck Crops.	C. S. Richards, Ransom,	11.59	8.08	7.00
238 128 404	†Baugh's Special Potato Manure,	H. H. Bennett, Easton, Routch & Swartzel, Clearfield, Jonah Shaffer, Luthersburg,	6.20	5.83	5.00
1566	Baugh's Wheat Fertilizer for Wheat & Grass.	Geo. S. Endslow, Blain,	7.36	8.69	8.00
800 903	Baugh's Wrapper Leaf Brand (A special manure for seed leaf tobacco	**John Ravene, Watsontown,** R. D. 2. G. Moyer, Mt. Joy,	5.10	3.75	3.50
	HENRY V. BAXTER, CHESTER, PA.				
1663	I. X. L. Phosphate,	Henry V. Baxter, Chester,	4.22	8.47	7.00
	BERG CO., THE, PHILADELPHIA, PA.				
1651	Berg's High Grade Potato Manure,	Edward F. Bracken, Paoli,	8.17	7.77	7.00
764 1653	†Berg's Special Bone Manure,	A. B. Groff, New Holland, Edward F. Bracken, Paoli,	6.76	7.97	7.00
765	Berg's Tobacco Manure,	A. B. Groff, New Holland,	5.87	7.88	8.00
	BERGER BROS., EASTON, PA.				
217	Lehigh Super Phosphate,	John S. Osterstack, Easton, Pa.	10.98	9.71	7.00
232	Potato & Truck Special Phosphate,	J. M. Kiefer, Easton,	11.28	10.01	7.00
	D. BLOCHER & CO., GETTYSBURG, PA.				
93	Ammoniated Soluble Phosphate,	Z. N. Wiernan, Gettysburg,	7.47	9.36	9.00
94	High Grade Super Phosphate,	Z. N. Wiernan, Gettysburg,	8.46	9.68	9.00
	BOWKER FERTILIZER CO., NEW YORK CITY.				
563 241 754	†Bowker's Corn and Grain Grower,	Marshall Bros., New Castle, L. F. Harris, Ft. Hunter, A. L. Herr, Quarryville,	10.40	8.09	8.00
1333 1854	†Bowker's Farm & Garden Phosphate,	J. W. Howhart, Warren, D. Beltz, Wiseport,	11.02	8.45	8.00
1093 978 1301	†Bowker's Hill & Drill Phosphate,	Kernochan & Co., Titusville, J. A. Kimbel, Elysburg, H. M. Spaulding & Son, Troy	13.77	9.76	9.00
1430	Bowker's Ideal Potash Compound,	J. C. Mattern, Stormstown, R. F. D.	13.93	10.07	10.00
1281	Bowker's Lawn & Garden Dressing,	W. C. Beckert, Pittsburg, N. S.	7.42	5.60	4.00
565 242 976	†Bowker's Market Garden Fertilizer,	Marshall Bros., New Castle, L. F. Harris, Ft. Hunter, J. A. Kimbel, Elysburg,	8.15	6.84	6.00
756	Bowker's Potash Fertilizer,	A. L. Herr, Quarryville,	9.90	6.96	6.00
1633	Bowker's Potash or Staple Phosphate,	C. F. Craig, Sligo,	12.16	8.66	8.00
975 1758	†Bowker's Potato & Vegetable Fertilizer.	J. A. Kimbel, Elysburg, B. F. Fink, Huntingdon,	11.37	8.96	8.00
249 974	†Bowker's Potato & Vegetable Phosphate.	L. G. Landis, Paxtonia, J. A. Kimbel, Elysburg,	11.38	9.14	8.00
244 144 345	†Bowker's 6 Per Cent. Potato Fer-	L. G. Landis, Ft. Hunter, W. A. Mays, Houtzdale, C. S. Hunter Co., Washington.	9.64	6.78	6.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.		Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.			
1.21	8.43	--------	7.35	--------	7.35	7.00	*3.88	4.12	38.59	†37.00	868
										38.00	1678
1.11	9.19	--------	7.36	--------	7.36	7.00	3.05	2.88	35.34	37.00	867
1.49	7.32	--------	10.39	--------	10.39	10.00	1.73	1.65	30.09	32.50	238
										†30.00	128
										28.00	404
.79	9.48	--------	2.36	--------	2.36	2.00	1.76	1.65	24.46	----------	1566
1.96	5.71	--------	7.38	--------	7.38	5.00	*2.48	3.30	28.71	†--------	800
										28.00	903
4.25	12.72	11.00	5.71	--------	5.71	5.00	1.49	1.65	28.08	27.00	1663
3.91	11.68	--------	8.45	--------	*8.45	10.00	*2.30	3.00	33.88	36.00	1651
4.71	12.68	--------	3.38	--------	3.38	3.00	*1.39	2.00	25.00	†24.00	764
										26.00	1653
3.30	11.18	--------	5.01	--------	*5.01	6.00	3.79	3.00	37.39	29.00	765
1.58	11.29	--------	4.42	--------	4.42	4.00	1.62	1.65	27.24	25.00	217
1.44	11.45	--------	5.89	--------	5.89	6.00	*1.80	2.04	29.96	30.00	232
1.96	11.32	11.00	2.44	--------	2.44	1.50	.50	.41	19.77	17.00	93
1.96	11.64	11.00	2.05	--------	2.05	2.00	*92	1.23	21.64	20.00	94
1.28	9.37	9.00	4.20	--------	4.20	4.00	.93	.82	22.14	24.00	563
										†20.50	241
1.49	9.94	9.00	3.02	--------	3.02	2.00	*1.29	1.65	23.04	22.00	754
										†26.00	1333
										23.00	1854
1.28	11.04	10.00	2.25	--------	2.25	2.00	2.39	2.47	28.78	32.00	1093
										†26.00	978
										28.00	1301
.78	10.85	11.00	6.10	--------	6.10	6.00	1.41	1.23	27.98	----------	1430
16.83	22.43	8.00	2.51	--------	*2.51	5.00	*1.76	3.29	29.16	40.00	1281
.94	7.78	7.00	9.56	--------	*9.56	10.00	2.56	2.47	33.90	37.00	565
										†30.00	242
										32.00	976
1.64	8.60	7.00	2.21	--------	2.21	2.00	.95	.82	19.09	20.00	756
1.28	9.94	9.00	3.98	--------	3.98	3.00	.94	.82	22.48	23.00	1633
1.40	10.36	9.00	4.43	--------	4.43	4.00	2.44	2.47	30.50	†28.00	975
.83	9.97	9.00	2.48	--------	2.48	2.00	1.63	1.65	24.62	36.00	1758
										†23.00	249
										23.50	974
1.16	7.94	7.00	5.58	--------	*5.58	6.00	1.17	.82	23.12	24.00	244
										†--------	144
										27.00	345

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
1935	Bowker's Special Grain and Vegetable Mixture.	A. Hostettler, Scalp Level,	6.50	7.91	7.00
660	Bowker's Sure Crop Phosphate,	J. H. Cooke, Brush Hill,	9.74	9.43	9.00
143 1269	†Stockbridge's Special Complete Manure for Corn and all Grain Crops.	W. A. Mays, Houtzdale, Harry Harned, Wyoming,	7.77	*8.68	10.00
243 65 487	†Stockbridge's Special Complete Manure for Potatoes and Vegetables.	L. G. Landis, Ft. Hunter, P. L. Touhey, Little Meadows. Geo. Maurer, Pitman,	9.90	6.83	6.00
	S. B. BRODBECK, BRODBECKS, PA.				
1464	Brodbeck's Reliable,	B. F. Goodwin, New Freedam,	8.14	8.40	8.00
1465	Brodbeck's Special Potato,	B. F. Goodwin, New Freedom,	8.98	8.44	8.00
	BUFFALO FERTILIZER CO., THE, BUFFALO, N. Y.				
586 408 700	†Celery & Potato Special,	M. Gillis, Hughesville, E. H. Harmon, DuBois, Reynoldsville Hdw. Co., Reynoldsville.	10.18	8.82	8.00
566 460 585	†Farmer's Choice,	J. A. Cover, A. L. Grove, Mifflinburg, M. Gillis, Hughesville,	12.09	8.12	8.00
925 816 1607	†Fish Guano,	Asa McDonald, Greenville, J. A. Gass, Sunbury, Eicher & Graft, Scottdale,	14.85	9.74	9.00
1953	Garden Truck,	Foster Strong, Columbia Cross Roads.	9.02	8.24	8.00
841 913 1313	†Ideal Wheat and Corn,	E. H. Harmon, DuBois, H. B. Hoon, Mercer, Snyder Bros., Liberty,	14.24	10.84	9.00
	CHESAPEAKE CHEMICAL CO., THE, BALTIMORE, MD.				
482 1542	†C. C. Co.'s English Mixture,	Jacob J. Romberger, Rough & Ready. Ordered from factory for own use by Elias Gerhart, Jonestown.	7.93	8.11	8.00
311	C. C. Co.'s Farmer's Favorite,	Jacob J. Romberger, Rough & Ready.	6.11	7.57	7.00
312	C. C. Co.'s Imperial Guano,	Jacob J. Romberger, Rough & Ready.	7.15	8.41	8.00
481 1543	†C. C. Co.'s National Crop Grower,	Jacob J. Romberger, Rough & Ready. Ordered from factory for own use by Elias Gerhart, Jonestown.	9.37	8.03	8.00
	COE-MORTIMER CO., THE, NEW YORK, N. Y.				
362 1082	†E. Frank Coe's Columbian Corn and Potato Fertilizer.	T. F. Kunsman, Hellertown, Tucker & Squires, Springboro,	9.86	9.00	8.50
1081 361 1692	†E. Frank Coe's Gold Brand Excelsior Guano.	Tucker & Squires, Springboro, T. F. Kunsman, Hellertown, James Montgomery, Milford,	10.78	8.11	8.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.				
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.	Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
9.55	17.46	15.50	3.80	2.18	*5.98	8.00	*1.64	1.85	31.48	29.00	1935
2.56	11.99	10.00	2.52	--------	2.52	2.00	.90	.82	22.14	25.00	660
1.23	*9.91	11.00	8.73	--------	8.73	7.00	*2.83	3.29	36.43	†--------	143
										34.00	1269
										---------	243
1.62	7.95	7.00	9.50	--------	*9.50	10.00	3.21	3.29	36.70	†32.00	65
										33.30	487
1.06	9.46	9.00	2.33	--------	2.33	2.00	.55	.41	18.51	16.00	1464
1.02	9.46	9.00	4.09	--------	4.09	4.00	1.00	.82	22.48	19.00	1465
										29.00	586
1.19	10.01	9.00	9.51	--------	*9.51	10.00	1.58	1.60	31.33	†30.00	408
										33.00	700
										25.00	565
1.31	9.43	9.00	5.25	--------	5.25	5.00	.80	.80	22.53	†20.00	460
										22.00	585
										22.50	925
1.86	11.60	10.00	2.37	--------	2.37	2.00	.80	.80	21.48	†24.00	816
										24.00	1607
1.21	9.45	9.00	7.26	--------	7.26	7.00	*3.00	3.30	34.22	35.00	1953
										25.00	841
1.04	11.88	10.00	5.11	--------	5.11	5.00	1.52	1.60	28.38	†26.50	915
										30.00	1313
1.97	10.08	10.00	5.08	--------	5.08	5.00	.92	1.00	23.16	†21.70	482
										---------	1542
1.69	9.26	8.75	4.41	--------	4.41	4.00	.96	.82	22.09	20.35	311
1.85	10.26	10.00	3.09	--------	3.09	2.00	.57	.41	19.66	16.75	312
1.78	9.81	10.00	3.16	--------	3.16	2.00	*1.42	1.64	20.96	†21.55	481
										---------	1543
1.47	10.47	9.50	2.62	--------	2.62	2.50	1.10	1.23	22.21	†21.00	362
										23.00	1082
										32.00	1081
.75	8.86	9.00	5.98	--------	5.98	6.00	2.50	2.47	31.15	†30.00	361
										29.30	1692

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
1260 1086 1272	†Peruvian Vegetable Grower, Peruvian Guano Base.	A. H. Cobleigh, Alderson, -- Tucker & Squires, Springboro, I. W. Scott & Co., Pittsburg,	6.91	8.18	8.00
	HENRY COPE & CO., LINCOLN UNIVERSITY, PA.				
1647	Potato and Corn Phosphate,	Thomas Haines & Co., Malvern.	10.69	8.83	7.00
	JOSIAH COPE & CO., BALTIMORE, MD.				
675 1643	†Ammoniated Phosphate,	Geo. Ehret, Coal Hill, Harry Wilson, Fraser,	10.00	8.54	8.00
891 677 1138	†Potato and Tobacco Phosphate,	Jones Eavenson, Christiana, Geo. Ehret, Coal Hill, Frank Miller, Conestoga,	10.02	10.87	10.00
679	Try Me Fertilizer,	Geo. Ehret, Oil City,	10.60	8.57	8.00
674	Pure Bono Phosphate,	Geo. Ehret, Coal Hill,	10.11	9.70	9.00
680 894	†Wheat and Grass Special,	Geo. Ehret, Oil City, Jones Eavenson, Christiana,	10.58	9.03	8.00
	JAMES G. DOWNWARD CO., THE, COATESVILLE, PA.				
632	Ammoniated Phosphate,	Harry C. Hibbs, Hulmerville,	8.67	7.75	7.00
1669 1679	†Special Corn Manure,	Frank R. Wright, Edgeley, J. E. Underwood, Ivyland,	11.92	7.91	7.00
1680	Special Mixture,	J. E. Underwood, Ivyland,	12.53	7.83	6.00
631 1537	†Special Potato Fertilizer,	Harry C. Hibbs, Hulmerville, A. G. Lehman, Campbelltown,	10.00	7.68	7.00
	AMOS EBY & CO., LEAMAN PLACE, PA.				
763	Pequea Economy,	Harvey S. Eby, Refton,	7.46	9.28	9.00
	ERIE REDUCTION CO., THE, ERIE, PA.				
1397	Erie Cabbage Special,	F. G. Mohring, North Girard,	7.58	10.59	8.00
1396	Erie Corn and Oats Special,	F. G. Mohring, North Girard,	7.29	9.95	8.00
1398	Erie Potato Special,	F. G. Mohring, North Girard,	9.20	8.58	7.00
	EUREKA FERTILIZER CO., THE, PERRYVILLE, MD.				
615 511 835	†Corn and Potato Special,	L. Arnold, Elizabethville, Jonas P. Acker, Breinigsville, A. N. Wittes, Waterfall,	8.45	*8.75	9.00
753 82 1024	†Complete Compound,	H. C. Breckbill, Strasburg, John Hartman, McKnightown, S. A. Hostetler, Belleville,	8.21	7.99	7.00
478	Grain and Grass Mixture,	L. Arnold, Pfonts Valley,	7.36	8.19	8.00
479 14 614	†High Grade Trucker,	L. Arnold, Pfonts Valley, M. H. Boyer, Pine Grove, L. Arnold, Elizabethville,	8.01	8.29	8.00
1074 1447	†Imperial Phosphate,	Levi Stofer, Kleinfeltersville, J. H. Bartenschlager, Stewartstown.	8.64	8.28	8.00
761 477 1059	†Potato and Vegetable,	New Providence Coal Co., New Providence. L. Arnold, Pfonts Valley, D. J. Beitzel, Mechanicsburg,	7.31	*7.40	8.00
	W. S. FARMER & CO., BALTIMORE, MD.				
1010	W. S. Farmer & Co.'s Clyde Brand,	J. A. Eichman, Globe Mills,	11.52	8.35	8.00
829	W. S. Farmer & Co.'s Potato and Tobacco Phosphate.	Francis Baker, Everett,	10.90	*7.75	8.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen, in 100 lbs.				
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.	Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
1.29	9.47	9.00	1.60	7.42	9.02	9.00	3.34	3.30	39.98	38.00	1260
										†42.00	1086
										44.00	1272
.98	9.81	9.00	5.17	--------	5.17	4.00	*1.00	1.25	23.91	24.00	1647
.99	9.55	9.00	3.37	--------	3.37	3.00	.84	.82	21.10	†25.00	675
										22.00	1643
										26.00	891
1.19	12.06	11.00	6.81	--------	6.81	7.00	.91	.82	27.30	†24.00	677
										23.00	1138
1.50	10.07	9.00	4.59	--------	4.59	4.00	1.60	1.65	26.22	28.00	679
4.30	14.00	13.50	3.97	--------	3.97	4.00	2.00	1.85	30.00	30.00	674
1.13	10.16	9.00	.42	1.11	1.53	1.00	.95	.82	20.53	†23.00	680
										18.00	894
1.28	9.03	8.00	3.02	--------	*3.02	3.50	1.04	.82	21.03	25.00	632
1.21	9.12	8.00	3.14	--------	*3.14	3.50	1.62	1.65	23.94	†29.00	1669
										25.00	1679
.85	8.68	--------	7.13	--------	7.13	1.00	2.69	.41	33.07	30.00	1680
.80	8.48	8.00	5.42	--------	5.42	5.00	1.11	1.24	23.43	†28.00	631
										27.00	1537
1.34	10.62	11.00	3.45	--------	3.45	2.50	1.67	1.65	25.92	24.00	763
1.20	11.79	9.00	4.02	--------	4.02	4.00	*1.35	1.65	26.35	25.00	1397
.40	10.35	9.00	4.53	--------	4.53	4.00	.74	.82	22.99	22.00	1396
2.61	11.19	8.00	7.68	--------	*7.68	10.00	*2.10	2.47	32.36	32.00	1398
										--------	615
1.42	10.17	10.00	3.34	--------	3.34	3.00	.89	.82	21.74	†22.00	511
										24.00	835
										22.00	753
1.53	9.52	8.00	4.87	--------	4.87	5.00	.95	.82	22.81	†20.00	82
										22.00	1024
1.72	9.91	9.00	2.21	--------	2.21	2.00	.96	.82	20.38	17.00	478
										25.00	479
.88	9.17	9.00	8.88	--------	*8.88	10.00	*1.44	1.65	29.32	†30.00	14
										30.00	614
1.66	9.94	9.00	1.87	--------	1.87	1.00	*.59	.82	18.43	†21.00	1074
										17.00	1447
										24.00	761
1.34	*8.74	9.00	4.16	--------	4.16	4.00	1.57	1.65	24.27	†--------	477
										24.00	1059
1.15	9.50	9.00	2.56	--------	2.56	2.00	.85	.82	20.16	18.60	1010
1.25	9.00	9.00	9.35	--------	*9.35	10.00	1.61	1.65	30.13	26.50	829

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
	FARMERS FERTILIZER WORKS, ELIZABETHTOWN, PA.				
265	†Grain and Grass Special,	C. B. Goehnauer, Lititz,	7.34	8.57	8.00
617		John Sheetz, Elizabethville,			
33	†Pride of Donegal,	W. V. Shirk, Mifflin,	5.43	7.54	7.00
266		C. B. Goehnauer, Lititz,			
904	Potato, Tobacco and Truck Manure,	H. S. Newcomer, Mt. Joy,	9.04	10.44	10.00
618	†Special Compound,	John Sheetz, Elizabethville,	6.70	7.33	7.00
905		H. S. Newcomer, Mt. Joy,			
267	Special Potato and Tobacco Manure,	C. B. Goehnauer, Lititz,	6.89	6.73	6.00
	GRIFFITH & BOYD CO., BALTIMORE, MD.				
278	†Ammoniated Bone Phosphate,	Bear & Long, Lititz,	10.20	8.06	8.00
476		Adam King, Allenwood,			
316		J. H. Nichols, Avis,			
279	†Double Strength Tobacco Grower,	Bear & Long, Lititz,	8.82	8.46	8.00
1219		G. H. Wolfs Sons, Mt. Wolf,			
433		John W. Hostettler, Walnut,			
314	†Farmers Potato Manure,	J. H. Nichols, Avis,	9.62	7.95	8.00
721		E. B. Ruhl & Son, Manheim,			
1057	Fruit and Root Compound,	A. B. Harnish, Mechanicsburg,	9.50	9.00	7.00
277	Gilt Edge Crop Guano,	Bear & Long, Lititz,	4.77	8.14	8.00
748		W. C. Herr, Strassburg,			
315	†Spring Crop Grower,	J. H. Nichols, Avis,	8.15	7.62	6.50
1056		A. B. Harnish, Mechanicsburg,			
723	†Valley Fertilizer,	E. B. Ruhl & Son, Manheim,	9.43	9.23	8.00
798		S. F. Ludwig, Milton, R. D.,			
	FRANK HARTRANFT, COATESVILLE, PA.				
169	Potato Phosphate,	Preston Powell, Jennersville,	10.47	*6.39	8.00
170	Special Phosphate,	Preston Powell, Kelton,	11.98	*8.06	10.00
171	Spring Crop Grower Phosphate,	Preston Powell, West Grove,	11.77	*8.56	10.00
	S. M. HESS & BROTHER, INC., PHILADELPHIA, PA.				
45	Potato and Truck Manure,	W. W. Book, Port Royal,	11.67	8.58	8.00
281		Benj. Weidner, Lititz,			
179	†Special Compound,	James B. Gilfillan, Cochraneville.	10.39	8.10	8.00
492		Daniel Kimmel, Mabel,			
151		Howard Stamm, Rosecrans,			
46	†Special Corn Manure,	W. W. Book, Port Royal,	11.34	8.24	8.00
180		Jas. B. Gilfillan, Cochraneville.			
551	†Special Potato Manure,	Ira Price, Everett,	9.76	8.08	8.00
1575		Elijah Livengood, Salsbury,			
282	Tobacco Manure,	Benj. Weidner, Lititz,	9.59	8.73	8.00
1403		Jacob Zaun, Fairview,			
290	†Keystone Phosphate,	McGee Feed Co., Oil City,	10.23	8.42	8.00
1863		O. Roth, Bowmanstown,			
	HOLMES SEED CO., HARRISBURG, PA.				
255	Holmes Lawn Dressing, †	Holmes Seed Co., Harrisburg,	4.89	3.99	------

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.		Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.			
.98	9.55	--------	4.91	--------	4.91	4.00	.87	.82	22.69	†20.00	265
										20.00	617
1.64	9.18	--------	1.60	3.99	5.59	5.00	1.65	1.65	27.25	†23.50	33
										24.00	263
.94	11.38	--------	1.60	4.26	5.86	6.00	*2.00	2.47	31.84	27.00	904
1.02	8.35	--------	1.63	--------	1.63	1.00	*.71	.82	17.42	18.00	618
										17.00	905
1.29	8.02	--------	2.00	7.94	9.94	10.00	2.46	2.47	35.25	31.00	267
2.61	10.67	9.00	2.92	--------	2.92	2.00	1.95	1.65	28.68	†24.00	278
										23.00	476
										35.00	316
1.70	10.16	9.00	3.52	--------	3.52	3.00	*2.25	2.50	28.26	†28.00	279
										26.00	1219
										24.00	433
1.85	9.80	9.00	8.90	--------	8.90	9.00	1.05	.85	27.28	†30.00	314
										26.00	721
2.71	11.71	8.00	5.20	--------	*5.20	6.00	*1.42	2.06	26.90	26.00	1057
2.12	10.26	9.00	1.73	8.37	10.10	10.00	1.70	1.65	33.69	30.00	277
										25.00	748
2.31	9.93	7.50	5.53	--------	5.53	4.50	1.59	1.65	26.65	†28.00	315
										23.00	1056
2.04	11.27	9.00	3.02	--------	3.02	3.00	.55	.41	20.52	†18.00	723
										17.25	793
1.77	*8.16	9.00	6.47	--------	*6.47	8.00	*.71	.82	21.70	27.00	169
1.50	*9.56	11.00	3.28	--------	3.28	2.00	.89	.82	21.02	21.00	170
1.43	*9.99	11.00	3.14	--------	3.14	2.00	.64	.41	20.16	17.00	171
1.47	10.05	9.00	6.49	--------	6.49	6.00	*2.21	2.47	31.06	28.00	45
										24.00	281
1.44	9.54	9.00	4.57	--------	4.57	4.00	1.60	.82	22.81	†22.00	179
										26.00	492
										--------	151
1.47	9.71	9.00	2.40	--------	2.40	2.00	.91	.82	20.28	†21.00	46
										21.00	189
1.43	9.51	9.00	7.42	--------	7.42	7.00	*3.03	3.29	35.53	†--------	551
										36.00	1575
1.34	10.07	9.00	6.44	--------	6.44	6.00	*2.25	2.47	31.28	30.00	282
										21.00	140
1.15	9.57	9.00	1.43	--------	1.43	1.00	.95	.82	19.56	†25.00	219
										18.75	1863
**8.83	12.82	--------	5.39	--------	5.39	5.00	*2.56	3.30	30.48	60.00	255

*Constituent falls below guaranty.
**Guaranteed 12 per cent. insoluble phosphoric acid.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
	HUBBARD FERTILIZER CO., THE, BALTIMORE, MD.				
108 31 292	†Hubbard's Climax Phosphate,	Biglerville Warehouse Co., Biglerville. H. M. Owens Co., Lewisburg, Wesley Seltzer, Schuylkill Haven.	6.34	6.94	7.00
107 30 610	†Hubbard's Columbia Gem,	Biglerville Warehouse Co., Biglerville. H. M. Owens & Co., Lewistown. J. A. Romberger, Elizabethville.	6.98	8.36	8.00
1720	Hubbard's Farmers I. X. L.,	J. A. Umble & Bro., Bird-in-Hand.	9.18	*7.58	8.00
164 32 1158	†Hubbard's Jersey Trucker,	W. A. Esenwine, Salona, R. D. No. 1. H. M. Owens & Co., Lewistown. Z. B. Spera, Dillsburg,	9.39	8.28	8.00
1617	Hubbard's Royal Ensign,	J. M. Smith, Jefferson,	8.21	7.92	8.00
1428	Hubbard's Standard Phosphate,	Wm. Thompson, Jr., Lemont,	8.74	8.11	8.00
	JARECKI CHEMICAL CO., THE, SANDUSKY, OHIO.				
360	Fish Phosphate & Potash and Tobacco & Potato Food.	G. L. Rommell, Mt. Air,	12.64	9.16	8.00
215 576	†Lake Erie Guano with Phosphate and Potash.	S. P. Manch, Ten Mile Bottom. W. H. Stephenson, Volant,	12.52	8.74	8.00
575	No. 1 Formula,	W. H. Stephenson, Volant,	11.11	9.12	8.00
213	Tobacco and Truck Grower,	S. P. Manch, Ten Mile Bottom.	10.87	7.10	6.00
	T. S. KENDERDINE & SONS, NEWTOWN, PA.				
1102	Kenderdine's Potato Phospbate,	T. S. Kenerdine & Son, Newtown.	8.92	7.96	7.00
	KEYSTONE BONE FERTILIZER CO., THE, PHILADELPHIA, PA.				
970 303 1317	†Keystone 20th Century Special,	E. A. Slagle, Paxinos, C. H. Schoffstall, Valley View C. E. Rauscher, Blossburg,	12.51	6.47	5.00
2	Keystone Economy Potash Compound,	Geo. Krause, Rock,	10.08	8.24	7.00
1350 304 1749	†Keystone Grain and Grass Manure,	Daniel F. Knittle, Catawissa, R. D. 1. C. H. Schoffstall, Valley View L. A. Geiger, Joanna,	10.27	7.26	7.00
1840	Keystone High Grade Truck and Tobacco Guano.	John Kuntz, Tripoli,	12.35	6.13	6.00
811	Keystone Supreme Potato and Truck Manure.	W. H. Miller, Northumberland R. D. 1.	9.72	7.85	8.00
1805	Keystone Standard Potato Manure,	John Hape, Conyngham,	11.70	6.34	6.00
1839	Keystone Vegetable Guano,	John Kuntz, Tripoli,	11.82	7.55	6.00
	LANCASTER BONE FERTILIZER CO., LANCASTER, PA.				
1434	Complete Ammoniated Bone Manure,	Josiah Flinchbaugh, Windsorville.	14.00	*7.38	8.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.		Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.			
										20.00	108
.94	*7.88	8.75	4.81	--------	4.81	4.00	1.01	.82	21.64	†21.00	31
										17.35	292
										17.00	107
1.76	10.12	9.75	2.66	--------	2.66	2.00	.45	.41	15.91	†18.00	30
										16.00	610
1.66	*9.24	9.75	2.42	--------	2.42	2.00	1.45	1.64	22.35	22.00	1720
										30.00	164
.96	*9.24	10.00	10.08	--------	10.08	10.00	1.49	1.64	30.84	†30.00	32
										30.00	1158
1.78	*9.70	10.00	6.72	--------	6.72	4.00	1.90	2.46	29.29	25.00	1617
1.02	*9.13	10.00	3.36	--------	3.36	3.00	1.63	1.64	24.49	----------	1428
.38	9.54	9.00	3.50	--------	*3.50	4.00	.93	.83	22.06	22.00	360
1.11	9.85	9.00	2.40	--------	2.40	2.50	1.14	1.25	21.82	†26.00	215
										---------	576
.47	9.59	9.00	2.12	--------	2.12	2.00	.80	.83	19.94	----------	575
.10	7.20	7.00	5.69	--------	*5.69	6.00	1.69	1.66	25.68	30.00	213
1.40	9.36	9.00	9.77	--------	*9.77	10.00	1.59	1.65	30.81	30.00	1102
										26.00	970
.79	7.26	6.00	10.82	--------	10.82	10.00	1.22	1.24	28.14	†26.00	303
										26.00	1317
1.16	9.40	8.00	5.80	--------	5.80	5.00	.90	.82	23.60	21.50	2
										19.00	1350
.92	8.18	8.00	1.86	--------	1.86	1.00	.94	.82	18.69	18.00	304
										---------	1749
1.23	7.36	7.00	2.68	--------	2.68	2.00	3.88	3.30	32.73	27.00	1840
1.15	9.00	9.00	9.03	--------	9.03	7.00	3.85	3.30	40.66	34.00	811
1.05	7.39	7.00	7.20	2.05	*9.25	10.00	*2.26	2.47	31.99	30.00	1805
.85	8.40	7.00	6.75	--------	6.75	6.00	1.65	1.66	27.32	24.00	1839
1.89	9.27	9.00	2.37	--------	2.37	2.00	.90	.82	19.53	22.00	1434

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
1868 1894	†Potato, Fruit and Vegetable,	Dr. J. Bumford, Wilmore, P. F. Wasson, Lovejoy,	10.24	7.85	7.00
1499 1895	†Potato, Tobacco and Truck Manure,	M. E. Rittenhouse, Berwick, R. D. 2. P. F. Wasson, Lovejoy,	8.62	8.32	8.00
	LANCASTER CHEMICAL CO., THE, LANCASTER, PA.				
724	No. 1 Tobacco and Vegetable Fertilizer,	E. B. Ruhl & Son, Manheim,	8.73	8.35	7.50
768	No. 2 Dewey Brand for Tobacco and Spring Crops.	J. B. Myer, Leola,	7.77	*6.19	8.00
767	No. 4 Rising Sun Animal Bone,	J. B. Myer, Leola,	6.31	10.50	10.00
	DANIEL LEVAN, LEBANON, PA.				
1078 11 1538	†Levan's Special Truck Fertilizer,	Dessinger & Lesher, Campbelltown. A. J. Fidler Sec, Paradise, E. H. Meyer, Annville,	8.58	8.16	7.00
248	Levan's Wheat and Grass Special Fertilizer.	Wm. G. Stricker, Dauphin,	6.13	8.58	8.00
	LISTER AGRICULTURAL CHEMICAL WORKS, NEWARK, N. J.				
420 146 539	†Lister's Corn an Potato Fertilizer,	J. H. Hortman, Hop Bottom. Knecht Bros., Parvin, D. B. Griffith, Wolfsburg, R. D.	11.69	8.04	8.00
352 211 1028	†Lister's Harvest Queen Phosphate,	D. E. Gamble, Monongahela, Clark Bros., Oil City, Jacob M. Zook, Belleville,	11.76	9.15	9.00
640 351 808	†Lister's Potato and Corn No. 2 Fertilizer.	H. Y. Pickering, Yardley, D. E. Gamble, Monongahela, B. Savage, Turbotville,	12.00	10.29	10.00
627 497 1156	†Lister's Potato Manure,	W. E. Erwin, Somerton, R. D. Sames, Coopersburg, W. H. Schriver, Dillsburg,	9.80	8.27	8.00
641 233 1062	†Lister's Special 10 Per Cent. Potato Fertilizer.	H. J. Pickering, Yardley, Sylvester Gair, Easton, Miller & Enrich, Mechanicsburg.	10.78	*7.70	8.00
1443	Lister's Special Fertilizer for Tomatoes,	Grove & Uffelman, Brogueville Station.	11.97	8.43	8.00
735	Lister's Special Tobacco Fertilizer,	H. H. Dietrich, West Willow.	11.17	8.45	8.00
234 145 353	†Lister's Special Crop Producer,	Sylvester Gair, Easton, Knecht Bros., Parvin, D. E. Gamble, Monongahela,	8.02	*6.77	7.00
969 1401	†Lister's Success Fertilizer,	H. M. Gordy, Stonington, Charles Beckman, Fairview,	12.05	9.41	9.00
221	Lister's 3-6-10 for Potatoes,	Sylvester Gair, Easton,	10.60	6.01	6.00
809 1691	†Lister's U. S. Super Phosphate,	B. Savage, Turbotville, W. & G. Mitchell, Milford,	9.75	8.09	8.00
	FREDERICK LUDLAM CO., BALTIMORE, MD.				
744	Ludlam's Cecrops Fertilizer No. 2 for Grain and Grass.	Wm. J. Hess, Quarryville,	11.19	7.39	7.00
1212	Ludlam's Cecrops Fertilizer C. & G. Brand.	Secrist & Thrig, York,	8.28	8.89	8.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.				
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.	Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
1.57	9.42	8.00	6.17	--------	*6.17	7.00	.91	.82	23.74	†24.00	1868
										24.00	1894
2.41	10.73	9.00	7.01	--------	*7.01	8.00	1.58	1.65	28.89	†24.00	1409
										28.00	1805
1.01	9.36	8.50	1.49	4.62	*6.11	7.00	1.92	2.06	29.57	30.00	724
.88	*7.02	9.00	5.77	--------	5.77	4.00	1.32	1.24	23.04	22.50	768
1.68	12.18	11.00	.33	3.67	*4.00	2.00	*1.26	2.47	26.67	26.50	767
										28.00	1078
.93	9.09	8.00	10.29	--------	10.29	10.00	*1.45	1.65	30.44	†24.50	11
										--------	1538
1.17	9.75	9.00	2.57	--------	*2.57	5.00	.85	.82	20.41	20.00	248
										27.00	420
1.93	9.97	9.00	3.47	--------	3.47	3.00	1.75	1.65	25.44	†25.50	146
										23.50	539
										27.00	352
1.56	10.71	10.00	2.36	--------	2.36	2.00	1.34	1.23	23.36	†26.00	211
										22.00	1028
										27.00	640
1.95	12.24	11.00	4.47	--------	4.47	4.00	1.65	1.65	28.30	†30.00	351
										22.00	808
										33.00	627
1.44	9.71	9.00	7.46	--------	7.46	7.00	3.36	3.29	37.70	†36.00	497
										35.00	1156
										32.00	641
2.18	9.88	9.00	10.15	--------	10.15	10.00	1.91	1.65	32.79	†30.00	237
										31.00	1062
1.28	9.71	9.00	2.47	--------	2.47	2.00	1.70	1.65	24.30	20.00	1443
1.21	9.66	9.00	3.09	--------	3.09	3.00	*1.78	2.06	25.40	--------	735
										17.50	234
2.01	8.78	8.00	1.46	--------	1.46	1.00	1.00	.82	18.57	†20.50	145
										25.00	353
1.78	11.19	10.00	2.33	--------	2.33	2.00	1.30	1.23	23.49	†21.00	969
										23.00	1401
1.89	7.90	7.00	10.14	--------	10.14	10.00	2.42	2.47	33.30	28.50	221
1.84	9.93	9.00	2.18	--------	2.18	2.00	.97	1.03	20.36	†20.00	899
										28.00	1691
2.52	9.91	8.00	1.27	--------	1.27	1.00	.79	.82	18.26	18.00	744
.96	9.85	9.00	2.37	--------	2.37	2.00	.50	.41	18.74	16.75	1212

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
1210 1567	†Ludham's Cecrops Fertilizers, Harvest Queen.	Secrist & Thrig, York, Peter Zerfing, New Boomfield,	9.49	8.63	8.00
264 1213	†Ludham's Cecrops Fertilizers, Standard Potash.	Chas. C. Knauss, Halifax, Secrist & Thrig, York,	10.90	8.58	8.00
1067		O. C. & E. G. Tritt, Centerville.			
745 1211	†Ludham's Cecrops Fertilizers, Spring Special.	Wm. J. Hess, Quarryville, Secrist & Thrig, York,	8.66	9.32	9.00
	MAPES FORMULA & PERUVIAN GUANO CO., NEW YORK, N. Y.				
273 812	†Mapes Average Soil Complete Manure	W. H. Muth & Co., Lititz, W. H. Diehl, Northumberland, R. D. 1.	9.11	7.05	7.00
666	Mapes Cereal Brand,	A. J. Wolf, East Stroudsburg,	8.03	*5.17	6.00
664 636 1064	†Mapes Complete Manure, A Brand,	A. J. Wolf, East Stroudsburg. John B. Satterthwaite, Woodbourne. E. W. Rupp, Shiremanstown,	9.14	*8.70	10.00
1830	Mapes Complete Manure, 10 Per Cent. Potash.	G. O. Fenstenmacher, North Penn.	8.59	5.20	3.00
665 635 1828	†Mapes Corn Manure,	A. J. Wolf, E. Stroudsburg, J. B. Satterthwaite, Woodbourne. G. O. Fenstenmacher, North Penn.	7.72	*7.08	8.00
637 270 659	†Mapes Economical Potato Manure,	J. B. Satterthwaite, Woodbourne. W. H. Muth & Co., Lititz, A. J. Wolf, East Stroudsburg.	5.43	5.37	4.00
268 658	†Mapes General Crop Brand,	W. H. Muth & Co., Lititz, A. J. Wolf, E. Stroudsburg,	11.10	8.08	8.00
1001	Mapes Grain Brand,	Geo. Schoch, Selinsgrove,	6.83	8.69	8.00
1002 663 1253	†Mapes Potato Manure,	Geo. Schoch, Selinsgrove, A. J. Wolf, E. Stroudsburg, A. F. Keimmel, Orwigsburg,	8.32	7.85	8.00
271	Mapes Tobacco Manure Wrapper Brand	W. H. Muth, Lititz,	7.33	3.40	------
269	Mapes Tobacco Starter Improved,	W. H. Muth, Lititz,	8.75	*5.18	6.00
272	Mapes Top Dresser Improved, Half Strength.	W. H. Muth, Lititz,	8.42	*2.16	2.50
15	Mapes Top Dresser Improved, Full Strength.	M. H. Boyer, Pine Grove,	6.29	5.71	5.00
1829	Mapes Vegetable or Complete Manure for Light Soil.	G. O. Fenstenmacher, North Penn.	5.48	6.10	6.00
	NOAH MARKLE, SEITZLAND, PA.				
1454	Markle A. C. C. Phosphate,	D. J. Trout, Stewartstown,	9.79	9.03	7.00
1453	Markle Electric Phosphate,	D. J. Trout, Stewartstown,	9.59	10.00	9.00
1452	Markle Potato Grower,	D. J. Trout, Stewartstown,	8.41	7.97	7.00
	D. B. MARTIN CO., PHILADELPHIA, PA.				
1458	Martin's Bull Head Fertilizer for Cotton and Tobacco.	J. C. Leib & Co., Stewartstown.	10.21	8.02	8.00
526 341 725	†Martin's Corn and Cereal Special,	Amandus Wotring, Schneeksville, R. J. Wallace, Canonsburg, L. P. White, Manheim,	12.09	8.63	8.00
284 1826	†Martin's Early Truck and Vegetable Grower.	E. K. Brubaker, Lititz, T. S. Balliett, Chain,	13.75	7.09	6.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.		Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.			
1.06	9.69	9.00	2.38	--------	2.38	2.00	.90	.82	20.49	†18.65	1210
										21.00	1567
.96	9.54	9.00	4.07	--------	4.07	4.00	.74	.82	21.36	†20.00	264
										20.10	1213
										23.00	1067
1.08	10.40	10.00	9.34	--------	9.34	7.00	.82	.82	28.33	†25.00	745
										22.80	1211
1.80	8.85	--------	1.33	4.81	6.14	5.00	*3.90	4.12	38.31	†36.00	273
										40.00	812
4.38	9.56	8.00	3.83	--------	3.83	3.00	1.75	1.65	24.09	32.00	666
										38.00	664
4.69	13.39	12.00	2.99	--------	2.99	2.50	2.40	2.47	30.12	†37.00	636
										33.00	1064
1.48	6.68	5.00	1.33	9.57	10.90	10.00	1.90	2.06	32.38	34.00	1830
										38.00	665
4.27	11.35	10.00	6.66	--------	6.66	6.00	*2.12	2.47	29.53	†37.00	635
										36.00	1828
										38.00	637
2.11	7.48	6.00	2.26	6.46	8.72	8.00	3.10	3.29	35.83	†36.00	270
										39.00	659
2.68	10.76	10.00	2.48	--------	2.48	2.00	1.52	1.65	23.72	†23.00	268
										28.00	658
2.21	10.90	--------	4.56	--------	4.56	4.00	.86	.82	23.06	24.00	1001
										37.00	1002
2.11	9.96	9.00	2.00	5.06	7.06	6.00	3.65	3.71	39.03	†42.00	663
										40.00	1253
2.38	5.78	4.50	2.13	8.41	10.54	10.50	*5.78	6.18	49.16	48.00	271
5.16	10.34	8.00	1.60	.79	2.39	1.00	4.05	4.12	34.21	36.00	269
1.87	4.03	4.00	2.00	.28	2.28	2.00	4.90	4.94	33.45	33.00	272
3.15	8.86	8.00	4.52	--------	4.52	4.00	*9.39	9.88	61.45	56.00	15
3.00	9.10	8.00	7.58	--------	7.58	6.00	5.35	4.94	46.52	42.00	1829
.88	9.91	8.00	8.26	--------	8.26	8.00	*1.44	1.65	29.38	25.00	1454
1.59	11.59	10.00	2.38	--------	2.38	2.00	.39	.41	19.76	18.00	1453
3.82	11.79	8.00	3.97	--------	3.97	4.00	1.62	1.65	26.10	24.00	1452
.64	8.66	--------	3.84	--------	3.84	3.00	2.96	2.47	30.96	25.00	1458
										21.00	526
1.85	10.48	--------	2.65	--------	2.65	2.00	1.51	1.65	24.01	†24.00	341
										22.00	725
.55	7.64	--------	8.51	--------	8.51	8.00	3.13	3.30	35.71	†30 00	284
										30.25	1826

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
1827	Martin's Gilt Edge Potato Manure,	T. S. Balliett, Chain,	11.00	8.49	7.00
448 340 553	†Martin's One, Eight and Four,	Sam. K. Striekler, Mifflinburg, R. J. Wallace, Canonsburg, R. W. Clark & Son,	11.06	*7.75	8.00
650 525 730	†Martin's Prize Potato,	E. J. Houck, Bangor, Amandus Wotring, Schneeksville. L. P. White, Manheim,	10.63	8.31	8.00
1463	Martin's Pure Animal Bone and Potash	H. W. Reheymer, Turnpike,	6.72	5.83	------
729 1291	†Martin's Special Compound,	L. P. White, Manheim, Mars Milling & Feed Co., Mars.	12.37	7.98	8.00
1192	Martin's Special Mixture,	A. P. Lippy, Littlestown,	10.07	*6.58	8.00
651 339 727	†Martin's Special Potato Manure,	E. J. Houck, Bangor, R. J. Wallace, Canonsburg, L. P. White, Manheim,	15.20	9.03	8.00
527 384 728	†Martin's Sure Grower,	Amandus Wotring, Schneeksville. E. J. Houck, Bangor, L. P. White, Manheim,	12.68	7.95	8.00
	FREDERICK MEHRING, BRUCEVILLE, MD.				
1186	General Crop Grower,	J. N. Slifer, Littlestown,	12.18	14.89	10.00
1185	Twenty Six Dollar Phosphate,	J. N. Slifer, Littlestown,	11.74	13.23	10.00
	MILLER FERTILIZER CO., THE, BALTIMORE, MD.				
276 111	†Harvest Queen,	W. H. Muth, Lititz, Biglerville Warehouse Co., Biglerville.	8.50	9.19	9.00
1091		F. A. Bidan, Titusville,	8.25	8.11	8.00
1963	†Potato and Vegetable Grower,				
1450	Special Tobacco Grower,	J. W. Keesey, Stewartstown,	8.66	8.00	8.00
152 81 815	†Special Potato Fertilizer,	W. L. Wolf, Booneville, H. E. Riddlemoser, McKnightstown. J. A. Gass, Sunbury,	6.41	7.52	7.00
469 110 1546	†Hustler Phosphate,	Peter Hause, New Columbia, Biglerville Warehouse Co., Biglerville. Saul Baeshore, Fredericksburg.	8.50	8.02	8.00
80 597	†Pimlico,	H. E. Riddlemoser, McKnightstown. G. H. Anderson, Muney, R. D. 7.	7.43	8.03	8.00
320	W. G. Phosphate,	A. R. Gilmore, Linden,	8.06	7.26	7.00
	NASSAU FERTILIZER CO., NEW YORK, N. Y.				
879 70 1880	†Common Sense Potato Manure,	C. L. Allen, Powell, Mat. Griffith, St. Joseph, D. J. Davis, Ebensburg,	11.15	8.75	8.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.								
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Nitrogen. in 100 lbs. Found.	Nitrogen. in 100 lbs. Guaranteed.	Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
.51	9.00	--------	10.08	--------	10.08	10.00	*2.22	2.47	34.42	30.00	1827
										16.98	448
1.47	9.22	--------	5.27	--------	5.27	4.00	.87	.82	22.44	†23.00	340
										23.50	553
										22.00	650
1.30	9.61	--------	9.53	--------	*9.53	10.00	1.68	1.65	31.40	†27.50	525
										28.00	730
13.51	19.34	16.00	3.51	--------	3.51	2.50	*1.41	1.65	27.14	25.00	1463
1.53	9.51	--------	3.69	--------	*3.69	5.00	1.77	1 .65	25.48	†23.00	729
										20.00	1291
2.72	9.30	--------	4.14	--------	4.14	3.00	.35	.41	18.34	18 00	1192
										28.00	651
.96	9.99	--------	5.25	--------	5.25	5.00	.83	.82	23.52	†24.00	339
										20.00	727
										18.00	527
1.20	9.15	--------	1.65	--------	1.65	1.00	.89	.82	19.09	†18.00	384
										17.00	728
.91	15.80	11.00	2.04	--------	2.04	1.50	*.71	.82	25.48	17.00	1186
3.61	16.84	11.00	1.86	--------	1.86	1.50	1.56	1.24	28.98	19.00	1185
										21.00	276
.75	9.94	9.50	3.31	--------	3.31	2.75	1.18	1.03	23.28	†21.00	111
										25.00	1091
1.03	9.14	8.50	4.87	--------	4.87	4.00	1.89	1.65	27.30	--------	1963
1.28	9.28	8.50	4.33	--------	4.33	4.00	1.55	1.65	25.06	23.50	1450
										22.25	152
.77	8.29	7.50	5.31	--------	5.31	5.00	.98	.83	22.65	†21.00	81
										25.00	81[illegible]
										19.00	460
1.15	9.17	8.50	1.89	--------	1.89	1.00	.82	.83	18.92	†18.00	110
										20.00	1543
										†28.00	8[illegible]
.99	9.02	8.50	10.63	--------	10.63	10.00	1.63	1.65	31.87	28.00	597
1.17	8.43	7.50	1.36	--------	1.36	1.00	.47	.42	15.94	20.00	32[illegible]
										26.00	879
1.03	9.78	9.00	4.11	--------	4.11	4.00	1.66	1.65	25.94	†27.50	70
										26.00	1880

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
456 387 1216	†General Favortie,	J. L. Sanders, Mifflinburg, J. T. Foulk & Co., Houtzdale. Brillinger & Swartz, Emigsville.	8.74	8.35	8.00
865	Gladiator Truck and Potato,	F. L. Thompson, Schulzville,	11.62	7.49	7.00
458	Old Hickory,	A. R. Walters, Swengle,	9.28	10.36	10.00
386 71 459 1061	†Special Potato Fertilizer,	J. T. Foulk & Co., Houtzdale. Mat. Griffith, St. Joseph, A. R. Walters, Swengle,	10.20	8.51	8.00
388 1215	†Wheat and Grass Grower,	J. H. Kooler, Mechanicsburg, J. T. Foulk & Co., Houtzdale. Brillinger & Swartz, Emigsville.	10.87	9.18	8.00
	G. OBER & SONS CO., BALTIMORE, MD.				
95	Ober's Special Plant Food,	D. Blocher & Co., Gettysburg,	8.95	9.43	9.00
	OXFORD PACKING WORKS, OXFORD, PA.				
172 1688	†Grange Two,	Oxford Packing Works, Kelton Oxford Packing Works, Nottingham.	14.10	8.64	8.00
	OYLER & SPANGLER, GETTYSBURG, PA.				
97	Acidless,	M. S. Orner, Gettysburg,	6.76	*4.62	7.00
	PATAPSCO GUANO CO., BALTIMORE, MD.				
261	Columbian Guano for Truck, Potatoes and Tobacco.	J. O. S. Berkholder, Hummelstown.	9.12	8.53	8.00
263	Coon Brand Guano,	J. O. S. Berkholder, Hummelstown.	11.43	9.91	9.00
1431	Grange Mixture,	Jonathan Geesey & Son, Dallastown.	12.50	8.43	8.00
455 89 1568	†Patapsco B. B. & P. Brand,	J. R. Iddings, Vicksburg, E. C. Thomas, Gettysburg, Jacob Fritz, New Bloomfield.	9.36	7.90	8.00
262 347 810	†Patapsco Corn and Tomato Fertilizer	J. O. S. Berkholder, Hummelstown. Russell Bros., Washington, Walter & Fredericks, Milton, R. D. 3.	12.36	9.24	9.00
260 1467	†Patapsco Early Trucker for Quick Growth.	J. O. S. Berkholder, Hummelstown. H. P. Kocher, Wrightsville,	9.34	7.45	7.00
90 465 454	†Patapsco Grain and Grass Producer,	E. C. Thomas, Gettysburg, Geo. L. Schull, Vicksburg, J. R. Iddings, Vicksburg,	9.55	8.73	8.00
346 1569	†Patapsco Potato Manure,	Russell Bros., Washington, Jacob Fretz, New Bloomfield,	8.74	5.46	5.00
1432	Patapsco Tobacco and Potato Fertilizer.	Jonathan Geesey & Son, Dallastown.	12.27	8.67	8.00
	PENNSYLVANIA AMMONIA AND FERTILIZER WORKS, HARRISBURG, PA.				
246	Capital Brand,	A. H. Carlysle, Coxestown,	8.69	9.44	9.00
1063	Dauphin Brand,	E. W. Rupp, Shiremanstown,	9.73	*9.73	10.00
245 250	†Potato, Vegetable and Tobacco Fertilizer.	A. H. Carlysle, Coxestown, M. D. Ebersole, Middletown,	6.03	8.28	8.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.		Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.			
										21.00	456
1.12	9.47	9.00	4.25	--------	4.25	4.00	.86	.82	21.86	†29.00	387
										20.00	1216
1.34	8.83	8.00	7.63	--------	7.63	7.00	*3.06	3.29	35.14	33.00	865
1.17	11.53	11.00	7.21	--------	*7.21	8.00	.78	.82	26.74	25.50	458
										36.00	386
1.06	9.57	9.00	9.79	--------	*9.79	10.00	2.08	1.65	33.66	†30.00	71
										29.00	459
										18.50	1061
.85	10.03	9.00	2.52	--------	2.52	2.00	1.00	.82	21.55	†26.50	388
										18.00	1215
1.25	10.68	10.00	3.79	--------	*3.79	5.00	*1.34	1.65	24.99	25.00	95
.75	*9.39	10.00	7.77	--------	7.77	6.00	1.61	1.44	29.17	†24.00	172
										25.00	1688
2.62	*7.24	9.00	9.44	--------	9.44	8.00	*1.92	2.47	29.14	30.00	97
1.17	9.70	9.00	5.73	--------	5.73	5.00	2.47	2.47	31.30	30.00	261
.61	10.52	10.00	3.06	--------	3.06	3.00	.90	.82	22.22	20.00	263
1.13	9.56	9.00	2.05	--------	2.05	2.00	1.58	1.65	23.29	22.00	1431
										16.50	455
.96	8.86	9.00	2.64	--------	2.64	2.00	.44	.41	17.78	†16.50	89
										18.00	1568
1.15	10.39	10.00	2.17	--------	2.17	2.00	1.16	1.23	22.10	†22.00	262
										27.50	347
										34.00	810
1.40	8.85	8.00	6.74	--------	6.74	5.00	*3.66	4.11	37.08	†32.00	260
										34.00	1467
.89	9.62	9.00	3.97	--------	3.97	4.00	.90	.82	22.11	†20.00	90
										20.00	465
										27.00	454
.91	6.37	6.00	9.64	--------	*9.64	10.00	1.65	1.65	28.15	†30.00	346
										30.00	1569
1.22	9.89	9.00	3.97	--------	3.97	4.00	1.65	1.65	25.81	23.50	1432
1.02	*10.46	11.00	3.86	--------	3.86	4.00	*1.39	1.65	25.16	28.00	246
.78	*10.51	11.50	2.96	--------	2.96	2.00	1.05	1.23	22.74	21.00	1063
1.13	*9.41	10.00	.67	8.04	*8.71	9.00	*2.17	2.47	33.56	†32.00	245
										32.00	250

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
	PENNSYLVANIA FERTILIZER CO., THE, BUFFALO, N. Y.				
1381	Big Bonanza,	M. F. Bailey, Willsboro,	12.93	9.31	8.00
1382	Empire 10 Per Cent.,	M. F. Bailey, Willsboro,	10.91	7.93	8.00
1379	Four Fold,	M. F. Bailey, Willsboro,	15.27	10.52	8.00
1380	Vegetable and Vine,	M. F. Bailey, Willsboro,	10.74	*8.94	10.00
	J. D. PERKINS, COATESVILLE, PA.				
175	Perkins' Monarch Phosphate,	Edw. Tringley, Kelton,	11.85	10.60	8.00
174	Perkins' Special Bono Manure,	Edw. Tringley, Kelton,	13.06	8.55	8.00
	PIEDMONT MT. AIRY GUANO CO., BALTIMORE, MD.				
588	†Insula Guano,	M. Gillis, Hughesville,	5.37	6.87	7.00
1557		A. H. Ulsh, Millerstown,			
1486		C. F. Fredericks, Mercersburg.			
955	†Piedmont Penna. Grain Grower,	J. G. Simpson, Huntingdon,	5.03	6.22	7.00
1797		P. Wrigley Hardware Co., Mahaffey.			
587		M. Gillis, Hughesville,			
119	†Piedmont Pennsylvania Potato Producer.	Aspers Milling & Produce Co., Aspers.	6.89	7.75	6.00
1030		Robt. T. Close, Milroy,			
589	†Piedmont Perfection Guano,	M. Gillis, Hughesville,	7.17	9.07	8.00
1445		C. L. Grove, Kelton,			
958	Piedmont Pure Raw Bone Mixture,	J. G. Simpson, Huntingdon,	5.98	8.41	8.00
98	Piedmont Royal Ammoniated Bone and Potash.	H. D. & Z. F. Bream, Gettysburg.	7.18	8.16	6.00
	PITTSBURG PROVISION & PACKING CO., PITTSBURG, PA.				
854		G. E. Towns, Pennfield,			
343	†Corn and Potato Fertilizer,	Dunlap Bros., Canonsburg,	7.03	*7.81	9.00
1278		Seobie Parker Co., Pittsburg,			
1284	Keystone Fertilizer,	F. Gasiti, Wilkinsburg,	7.46	9.50	9.00
1277	Lawn Fertilizer,	Seobie Parker Co., Pittsburg,	5.31	6.42	4.00
1293		C. Beckert & Co., Pittsburg,			
349	†Special Potato Fertilizer,	Geo. B. Sproul, Claysville,	7.64	*8.34	9.00
1611		Weddle & Sutton, West Newton.			
	POLLOCK FERTILIZER CO., THE, BALTIMORE, MD., BY A. A. C. CO., N. Y.				
1043	†Pollock's Ammoniated Super Phosphate.	J. D. Garman, Shippensburg,	14.43	8.34	8.00
1766		J. H. Scott, Petersburg,			
529	†Pollock's Crop Invigorator,	D. W. Dibert, Bedford,	10.40	8.31	8.00
831		Francis Baker, Everett,			
536	†Pollock's Special Potato and Tobacco Fertilizer.	J. L. Longenecker, Woodburg	11.53	8.12	8.00
1208		Strayer Bros., West York,			
		H. A. Starr, Orbisonia,			
944	†Pollock's Superior Corn and Tomato Fertilizer.	Samuel A. Barshinger, Red Lion.	14.64	8.60	8.00
1433					
	RAMSBURG FERTILIZER CO., FREDERICK, MD.				
1188	Ramsburg Ammoniated Phosphate,	Nelson Study, Littlestown,	11.36	*9.04	10.00
1046	†Ramsburg Old Virginia Compound,	J. D. Garman, Shippensburg,	10.74	8.92	8.00
1189		Nelson Study, Littlestown,			
1190	Ramsburg Queen,	Nelson Study, Littlestown,	13.62	12.62	8.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.		Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.			
1.91	11.22	9.00	3.79	--------	*3.79	4.00	.82	.80	22.52	27.00	1381
1.77	9.70	9.00	8.08	--------	*8.08	10.00	1.86	1.60	30.50	32.00	1382
1.40	11.92	9.00	2.95	--------	2.95	2.00	*.57	.80	21.44	25.00	1379
1.29	*10.23	11.00	8.97	--------	8.97	8.00	.92	.80	27.61	28.00	1380
1.47	12.07	--------	5.36	--------	5.36	5.00	1.29	1.23	27.61	27.00	175
1.52	10.07	--------	1.28	--------	1.28	1.00	.93	.82	19.74	22.00	174
.13	7.01	--------	2.94	--------	2.94	2.00	.36	.41	14.10	†17.00	588
										16.00	1557
										20.00	1486
.06	6.88	--------	4.75	--------	*4.75	5.00	*.61	.82	18.81	†21.50	955
										24.00	1797
										28.00	587
.55	8.30	--------	9.36	--------	*9.36	10.00	1.50	1.65	29.31	†28.00	119
										27.60	1039
.92	9.99	--------	5.65	--------	5.65	5.00	1.60	1.65	27.56	†25.00	580
										22.00	1445
1.78	10.19	10.00	2.62	--------	2.62	2.00	1.23	1.00	22.48	26.00	938
.89	9.05	--------	3.80	--------	3.80	3.00	*.85	1.07	21.10	21.50	98
										25.00	854
2.39	*10.20	11.00	3.68	--------	3.68	3.00	1.67	1.43	25.21	†25.00	343
										23.00	1278
1.43	10.93	11.00	1.75	--------	1.75	1.50	1.50	1.43	23.78	23.00	1234
9.24	*15.66	16.00	2.67	--------	2.67	1.50	2.86	2.87	31.77	40.00	1277
										23.00	1293
2.05	10.39	10.00	6.51	--------	*6.51	7.00	1.60	1.64	28.22	†30.00	349
										30.00	1611
1.12	9.47	9.00	2.44	--------	2.44	2.00	1.53	1.65	23.38	†21.50	1043
										20.00	1765
1.07	9.38	9.00	4.29	--------	4.29	4.00	*.72	.82	21.15	†21.00	529
										22.00	831
1.26	9.38	9.00	4.30	--------	4.30	4.00	1.78	1.65	26.35	†--------	536
										22.50	1208
.85	9.45	9.00	2.24	--------	2.24	2.00	.77	.82	19.47	†--------	944
										20.00	1433
2.11	11.15	--------	2.67	--------	2.67	2.00	1.01	.82	22.14	19.00	1188
1.36	10.28	--------	4.46	--------	4.46	4.00	*.75	1.00	22.32	†--------	1046
										20.00	1189
1.47	14.09	--------	1.14	--------	1.14	1.00	.49	.41	21.52	17.00	1190

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
	RASIN MONUMENTAL CO., BALTIMORE, MD.				
948 474 1198	†Monumental Potato Manure,	J. M. Lutz, Shirleysburg, Adam King, Allenwood, J. D. Markle, Hanover,	8.52	6.71	6.00
47 116	†Rasin's Empire Guano,	W. W. Book, Port Royal, Asper Milling & Produce Co., Asper.	12.44	8.37	8.00
1753	Rasin's General Tobacco Grower,	L. A. Geiger, Joanna,	11.17	8.83	8.00
1197	Rasin's Genesce Valley Root Manure,	J. D. Markle, Hanover,	9.52	8.67	8.00
25	Rasin's I. X. L. Fertilizer,	C. B. McCormick, State College.	13.67	8.97	9.00
533 44 1508	†Rasin's National Crop Compound,	H. G. Diehl, Bedford, W. W. Book, Port Royal, H. B. Lowe & Sons, Orangeville.	10.39	8.21	8.00
983 186 1613	†Rasin's Royal Fish Bone and Potash,	Simon R. Carl, Catawissa, R. D. 2. E. H. Keen & Co., Parkersburg. Wm. Davis, Jr., Greensboro,	11.08	7.92	8.00
839 475 1361	†Rasin's United Grain Grower,	E. H. Huston, Saltillo, Adam King, Allenwood, H. D. Miller, Mifflinville,	11.25	8.22	8.00
1007	Rasin's Vegetable Special,	A. D. Kramer, Kramer,	7.97	8.93	8.00
695 43 982	†Rasin's Wheat Corn and Oats Mixture	H. G. Bean, Big Run, W. W. Book, Port Royal, Simon R. Carl, Catawissa, R. D. 2.	9.26	7.92	8.00
534 540	†Rasin's X. X. X. Fertilizer,	H. G. Diehl, Bedford, A. C. Richards & Son, Schullsburg.	11.40	8.57	8.00
1115 1017 1521	†Wm. Penn Crop Grower,	S. C. Walker, Chadds Ford Junc. Isaac Shivery, McClure, H. A. Snyder, Strawberry Ridge.	9.33	9.39	8.00
	READING BONE FERTILIZER CO., READING, PA.				
1356	Blood, Meat and Potash Mixture,	H. F. Rittenhouse, Willow Grove.	9.52	8.73	8.00
397 286 880	†Farmers Tankage and Potash for Corn, Grain and Grass.	Geo. Rafferty, Grampian, B. H. Hershey, Manheim, A. C. Smith, Burtington,	8.80	7.86	8.00
1348	Farmers Union Fertilizer,	H. E. Kern, Catawissa, R. D. 1.	6.86	9.20	8.00
1150 285 1540	†Never Fail Crop Grower,	Grover C. Myers, Gardners Station. B. H. Hershey, Manheim, E. L. Wengert, Ono,	9.75	7.94	8.00
595 288 1146	†Reading Special Potato and Tobacco Grower.	G. H. Anderson, Muncy, R. D. 7. B. H. Hershey, Manheim, W. W. Moses, Exton,	5.12	6.50	6.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.		Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.			
1.16	7.87	7.00	7.02	--------	7.02	7.00	1.56	1.65	26.37	28.00	948
										†26.00	474
										25.50	1198
1.73	10.10	9.00	2.25	--------	2.25	2.00	1.55	1.65	23.49	†22.00	47
										23.00	116
2.70	11.53	9.00	2.85	--------	2.85	3.00	1.55	1.65	25.06	--------	1753
1.15	9.82	9.00	8.13	2.32	10.45	10.00	.88	.82	29.17	26.00	1197
1.68	10.65	10.00	3.75	--------	3.75	3.00	.92	.82	22.50	20.00	25
										--------	533
1.20	9.41	9.00	4.83	--------	4.83	4.00	.84	82	22.36	21.00	44
										19.25	1508
										22.00	983
2.64	10.56	9.00	3.26	--------	3.26	3.00	1.57	1.65	24.54	†22.00	186
										30.00	1613
										23.60	839
1.70	9.92	9.00	2.31	--------	2.31	2.00	.90	.82	20.25	†19.00	475
										22.00	1361
1.66	10.59	9.00	.93	8.41	*9.34	10.00	1.64	1.65	33.30	26.50	1007
										15.00	605
1.36	9.28	9.00	2.70	--------	2.70	2.00	.42	.41	17.84	†17.00	43
										17.00	982
1.68	10.25	9.00	2.20	2.92	5.12	5.00	1.57	1.65	27.10	†--------	534
										23.00	540
										20.00	1115
1.70	11.09	9.00	1.32	--------	1.32	1.90	.87	.82	20.22	†17.50	1017
										17.00	1521
1.02	9.75	9.00	2.29	--------	2.29	2.00	1.62	1.64	23.84	--------	1356
						4.00	.80	.82	21.28	†21.00	286
1.12	8.98	9.00	4.41	--------	4.41					23.50	397
										21.50	889
.71	9.91	9.00	7.73	--------	*7.73	8.00	*1.38	1.64	27.55	25.00	1348
										19.00	1150
1.33	9.27	9.00	1.59	--------	1.59	1.00	.83	.82	18.87	†20.00	285
										18.00	1540
										22.00	595
1.16	7.66	7.00	7.50	--------	7.50	7.00	.79	.82	23.08	†24.00	288
										25.00	1146

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
504 395 736	†Reading Sterling Potato Grower,	E. H. Carl, Coopersburg, Geo. Rafferty, Grampian, J. K. Mellinger, West Willow,	9.31	8.49	8.00
394 17 624	†Schuylkill Valley Favorite for Grain and Grass.	Geo. Rafferty, Grampian, M. A. McIlhinney, Pine Grove, J. H. Sheaffer, Greason,	5.26	7.08	7.00
503 287 1711	†Tobacco and Truck Special,	E. H. Carl, Coopersburg, B. H. Hershey, Manheim, W. H. Strass, Lehighton,	7.91	6.36	6.00
	ROBERT A. REICHARD, ALLENTOWN, PA.				
1834 1847	†Golden Harvest Phosphate,	N. D. Hunsicker, Snyders, T. Bettz, New Mahoning,	8.54	8.19	8.00
1832 1846	†Lehigh Potato Manure,	N. D. Hunsicker, Snyders, T. Bettz, New Mahoning,	6.56	8.68	8.00
1861	Little Giant Phosphate,	R. S. Kemmerer, Bowmans,	6.21	*6.32	7.00
1845	Truckers Favorite,	T. Bettz, New Mahoning,	7.33	*5.59	6.00
	F. S. ROYSTER GUANO CO., NORTHERN DIVISION, BALTIMORE, MD.				
522 1161	†Ammoniated Potash Compound,	Amandus Wotring, Schneeksville. H. Cook & Co., Dillsburg,	5.71	8.99	9.00
517 463 1159	†Big Yield Potato Producer,	Amandus Wotring, Schneeksville. Chas. Mensh, Mifflinburg, H. Cook & Co., Dillsburg,	4.97	5.28	5.00
1973	†Fish, Flesh and Fowl,	P. Beeby, Montrose,	9.56	8.39	8.00
528 424 912	†Gold Seal Potato and Tobacco Special	Amandus Wotring, Schneeksville. E. C. Rogers, Brooklyn, H. N. Sweigart, Gap,	8.06	*7.74	8.00
462 415 1364	†Imperial Formula,	Chas. Mensh, Mifflinburg, S. H. Page, New Milford, J. K. Adams, Berwick, R. D. 3	8.18	8.23	8.00
1970	†Lehigh Potato Grower,	J. K. Hoekley, Emporium,	8.33	7.06	7.00
1972	†Royster's Challenge Complete Compound.	P. P. Beeby, Montrose,	11.86	8.21	8.00
519 428 911	†Royster's Champion Crop Compound	Amandus Wotring, Schneeksville. E. C. Rogers, Brooklyn, H. N. Sweigart, Gap,	7.67	8.50	8.00
780	Royster's Complete Potato Manure,	Wm. A. Russell, Carbondale,	5.06	5.84	6.00
779	Royster's Corn and Hop Special Fertilizers.	Wm. A. Russell, Carbondale,	7.22	8.36	8.00
1340 1162 1370	†Royster's Farmers Delight,	John McKnall, Kane, H. Cook & Co., Dillsburg, John D. Morris, Blossburg,	6.11	7.83	8.00
461 524	†Royster's General Crop Fertilizer,	Chas. Mensh, Mifflinburg, Amandus Wotring, Schneeksville.	7.41	8.54	8.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.				
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.	Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
1.36	9.85	9.00	9.64	--------	*9.64	10.00	.74	.82	27.16	27.00 †29.50 --------	504 395 736
1.10	8.18	8.00	2.50	--------	2.50	2.00	.55	.41	17.37	20.00 †19.00 18.00	394 17 624
.88	7.24	7.00	6.71	--------	6.71	6.00	2.31	2.46	29.19	27.00 †30.00 31.50	503 287 1711
2.21	10.40	10.00	5.47	--------	5.47	5.00	1.62	1.64	27.06	†24.00 27.00	1834 1847
1.94	10.62	10.00	9.61	--------	*9.61	10.00	1.53	1.64	31.32	†28.00 32.00	1832 1846
1.75	*8.07	8.50	1.46	--------	1.46	1.00	.97	.82	17.71	21.00	1861
2.14	7.73	7.50	8.94	--------	8.94	8.00	3.61	3.28	37.56	37.00	1845
.60	*9.59	10.00	7.31	--------	7.31	7.00	.81	.82	25.16	†23.00 22.75	522 1161
.33	*5.61	6.00	10.13	--------	10.13	10.00	1.46	1.65	27.26	25.00 †23.00	517 463 1159
.41	*8.80	9.00	3.21	--------	3.21	3.00	1.52	1.65	23.62	†19.67	1973
1.17	8.91	9.00	9.97	--------	9.97	10.00	1.72	1.65	31.17	27.50 †33.50 31.00	528 424 912
.67	8.90	9.00	4.54	--------	4.54	4.00	.90	.82	22.09	18.00 †-------- 21.00	462 415 1364
.52	*7.58	8.00	*14.59	--------	14.59	15.00	.90	.82	31.10	--------	1970
.66	8.87	9.00	6.03	--------	6.03	6.00	1.58	1.65	26.92	--------	1972
.54	9.04	9.00	4.46	--------	4.46	4.00	1.77	1.65	26.28	23.00 †28.50 24.00	519 428 911
.79	*6.63	7.00	11.16	--------	11.16	10.00	*3.14	3.30	37.24	32.05	780
.96	9.32	9.00	3.55	--------	3.55	3.00	2.10	2.66	27.08	23.40	779
.36	*8.19	9.00	2.25	--------	2.25	2.00	.63	.41	17.98	25.00 †16.50 20.00	1340 1162 1370
.70	9.24	9.00	5.44	--------	5.44	5.00	.87	.82	23.10	†18.75 21.00	461 524

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
22 1342	†Royster's Golden Harvest Fertilizer,	E. R. Behney, Snedburg, N. C. Creasy, Catawissa,	7.20	8.17	8.00
790	Royster's Good Cheer Brand,	A. L. Miller, Clarks Summit,	8.03	8.60	8.00
1968	Practical Truck Guano,	W. F. Miller, Tamaqua, R. D.	11.26	8.47	8.00
1376 1160 1799	†Royster's Prolific Potato Producer,	R. J. Dunham, Wellsboro, H. Cook & Co., Dillsburg, D. C. Brittain, Register,	6.48	6.40	6.00
1365 1308	†Royster's Seeding Down Special Fertilizer.	Thomas Garrison, Berwick, R. D. 2. John D. Morris, Blossburg,	6.01	9.40	9.00
19	Royster's Trucker Favorite,	E. H. Behney, Snedburg,	6.96	8.71	8.00
1969	Royster's Wheat, Oats and Barley Fertilizer,	N. C. Creasy, Catawissa,	10.73	*7.75	8.00
425	Royster's Special Wheat and Corn and Grass Producer.	E. C. Rogers, Brooklyn,	9.29	9.63	9.00
1388	Universal Crop Grower,	C. S. Chamberlain, Sabinsville.	6.48	7.89	7.00
427	Universal Truck Fertilizer,	E. C. Rogers, Brooklyn,	8.20	8.22	8.00
	SCHAAL-SHELDON FERTILIZER CO., BUFFALO, N. Y.				
1100	Guano,	Brooklyn Milling Co., Spartansburg.	11.76	8.63	8.00
1101	Schaal's Corn and Potato,	Brooklyn Milling Co., Spartansburg.	13.88	8.91	8.00
	SCOTT FERTILIZER CO., THE, ELKTON, MD.				
738 1072	†Corn and Oats Grower,	S. Book & Bros., Quarryville, Elias S. Brubacher, Richland,	6.51	8.37	8.00
368 740	†Scott's Grain Special,	R. Fogle, Hecktown, S. Book & Bros., Quarryville,	9.51	8.28	8.00
638		John B. Satterthwaite, Woodbourne.			
367 1855	†Scott's Potato Grower,	R. Fogle, Hecktown, A. M. Diehl, Wiseport,	9.25	7.63	6.00
813	†	W. H. Diehl, Northumberland, R. D. 1.			
739 1127	†Scott's Potato and Truck Special,	S. Book & Bros., Quarryville, B. W. Jones, Doe Run,	8.01	9.01	7.00
639	Scott's Sure Growth Compound,	John B. Satterthwaite, Woodbourne.	7.52	7.89	7.00
634 766	†Scott's Sure Growth Super Phosphate	John B. Satterthwaite, Woodbourne. A. B. Groff, New Holland,	6.50	8.22	8.00
	A. B. SCHUMACHER, HAZLETON, PA.				
1813	Special Brand,	E. Frederick, Conyngham,	7.72	*6.48	7.00
	M. L. SHOEMAKER & CO., LTD., PHILADELPHIA, PA.				
16 3 258	†Swift Sure Guano for Tomatoes, Truck and Corn.	H. & G. Geneseiner, Paradise, U. E. Rhein, Rock, J. B. Shaffer, Swatara,	9.55	9.08	8.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.		Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.			
.37	*8.54	9.00	2.50	--------	2.50	2.00	1.59	1.65	23.17	†18.00 22.00	22 1342
.37	8.97	9.00	2.38	--------	2.38	2.00	1.11	1.02	21.07	22.00	790
.77	9.24	9.00	6.08	--------	6.08	6.00	2.41	2.47	31.18	†26.50 25.00	1968 1376
.34	*6.74	7.00	4.86	--------	4.86	5.00	1.12	1.23	21.32	†21.00 23.00	1160 1799
.57	9.97	10.00	3.43	--------	3.43	3.00	.78	.82	21.61	†19.75 22.00	1365 1368
.84	9.55	9.00	6.46	--------	6.46	5.00	*3.97	4.94	33.46	37.00	19
.39	*814	9.00	2.28	--------	2.28	2.00	.85	.82	18.93	†18.00	1969
.35	9.98	10.00	2.41	--------	2.41	2.00	.78	.82	20.70	24.50	425
.47	8.36	8.00	1.41	--------	1.41	1.00	.91	.82	18.43	18.00	1388
.93	9.15	9.00	6.52	--------	*6.52	7.00	*2.84	2.29	33.54	38.50	427
1.35	9.98	9.00	4.22	--------	4.22	4.00	.97	.82	22.71	25.00	1100
1.17	10.08	9.00	4.30	--------	4.30	4.00	1.56	1.65	25.87	29.00	1101
3.12	11.49	--------	2.73	--------	2.73	2.00	.74	.41	20.86	†18.00 18.00	738 1072
2.89	11.17	--------	4.38	--------	4.38	4.00	.83	.41	22.83	†-------- 20.00 29.00	368 749 638
3.21	10.84	--------	10.33	--------	10.33	10.00	1.85	1.65	32.70	†-------- 26.00	367 1855
1.72	10.73	--------	5.30	--------	5.30	5.00	1.69	1.65	27.99	24.00 †24.00 25.00	813 739 1127
1.91	9.80	--------	7.77	--------	7.77	7.00	3.41	3.30	37.60	35.00	639
2.04	10.26	--------	4.46	--------	4.46	3.00	1.75	1.65	25.98	†24.00 24.00	634 766
1.58	8.06	--------	9.24	--------	9.24	6.00	2.15	1.24	31.53	25.00	1813
1.81	10.89	10.00	5.62	--------	5.62	5.00	1.56	1.65	27.70	25.50 †24.75 --------	16 3 258

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
4 1545	†Swift Sure New Jersey Special for Oats.	U. E. Rhein, Rock, Aaron Bicksler, Fredericksburg	8.30	9.63	8.00
629	Swift Sure Special 10 Per Cent. Potato Fertilizer No. 1.	W. E. Erwin, Somerton,	8.48	7.48	6.00
259 630	†Swift Sure Special 10 Per Cent. Potato Fertilizer No. 2.	J. B. Shaffer, Swatara, W. E. Erwin, Somerton,	7.96	8.94	8.00
628	Swift Sure Super Phosphate for Potatoes.	W. E. Erwin, Somerton,	7.46	9.44	8.00
	CHAS. A. SICKLER & BRO., WILKES-BARRE, PA.				
423 1807	†Empire Phosphate,	M. McVlear, Hop Bottom, Ariel Klinger, Conyngham,	8.87	*5.90	8.00
422 1806	†Graves Potato and Tobacco Manure,	M. McVlear, Hop Bottom, Ariel Klinger, Conyngham,	9.60	*5.18	6.00
	SMITH AGRICULTURAL CHEMICAL CO., THE, COLUMBUS, OHIO.				
1391	Ohio Farmer's Ammoniated Phosphate and Potash.	C. R. Forbes, Albion,	7.24	9.37	8.00
1392	Ohio Farmer's Corn, Oats and Wheat Fertilizer.	C. R. Forbes, Albion,	5.78	*7.40	8.00
1395	Ohio Farmer's Excelsior Phosphate,	C. C. Kirkland, Girard,	6.51	11.13	8.00
1394	Ohio Farmer's Potato and Tobacco Special.	C. C. Kirkland, Girard,	6.77	8.15	8.00
1393	Ohio Farmer's Wheat Maker and Seeding Down.	C. C. Kirkland, Girard,	5.52	8.44	8.00
	SOUTHERN FERTILIER CO., THE, YORK, PA., BY A. A. C. Co., N. Y.				
1500 1362 1838	†Potato, Truck and Tobacco,	Elmer H. Shaffer, Berwick, R. D. 2. Elmer H. Shaffer, Berwick, R. D. 3. Henry Weaver, Tripoli,	8.40	9.00	8.00
506	Special Potato Grower,	Bastion & Romig, Wescosville,	11.35	8.87	8.00
	J. L. & H. STADLER RENDERING FERTILIZER CO., CLEVELAND, OHIO.				
928	Stadler's Corn and Wheat Special,	McMungle & Bros., Jamestown,	12.23	8.25	8.00
	STRAYER BROS. & CO., BY YORK CHEMICAL WORKS, YORK, PA.				
1207	Strayer's Special Wheat and Corn Fertilizer.	Strayer Bros., West York,	12.11	8.53	8.00
	SWIFT & CO., CHICAGO, ILL.				
556	Swift's Pure Diamond C Fertilizer,	R. G. Young Sons, New Galilee.	11.25	8.25	8.00
557	Swift's Pure Grain Fertilizer,	R. G. Young Sons, New Galilee.	11 47	8.53	8.00
554	Swift's Pure Onion, Potato and Tobacco Fertilizer.	R. G. Youngs Sons, New Galilee.	10.92	8.68	8.00
1650	Swift's Pure Special Potato Fertilizer,	Thomas Haines & Co., Malvern.	4.00	*7.61	8.00
1292 555 1648	†Swift's Pure Super Phosphate,	W. J. Kennedy Hardware Co., Mars. R. G. Youngs Sons, New Galilee. Thomas Haines & Co., Malvern.	6.64	*7.26	8.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.				
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.	Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
2.01	11.64	11.00	2.81	.....	2.81	2.00	1.15	.82	23.58	†19.50	4
										19.00	1545
.93	8.41	8.00	8.93	.....	*8.93	10.00	*2.86	3.30	35.32	34.00	629
1.62	10.56	10.00	10.88	.....	10.88	10.00	1.73	1.65	33.82	†.....	259
										29.00	630
2.35	11.79	11.00	7.63	.....	7.63	7.00	2.70	2.88	35.92	32.00	628
1.57	*7.47	9.00	2.81	.....	2.81	2.00	1.56	1.65	21.46	†21.00	423
										24.00	1807
1.78	6.96	.....	4.16	.....	*4.16	5.00	1.43	1.24	21.72	†28.00	422
										23.00	1806
.52	9.89	9.00	4.00	.....	4.00	4.00	.79	.82	22.15	23.00	1391
1.08	*8.48	9.00	2.27	.....	2.27	2.00	1.12	1.24	20.05	23.00	1392
.98	12.11	9.00	7.18	.....	7.18	7.00	*.68	.82	26.94	26.00	1395
1.59	9.74	9.00	3.82	.....	3.82	4.00	*1.40	1.65	24.08	25.00	1394
1.37	9.81	9.00	2.07	.....	2.07	2.00	.83	.82	19.83	21.00	1393
										30.00	1500
1.36	10.36	9.00	9.21	.....	*9.21	10.00	*1.10	1.65	28.89	†30.00	1362
										27.50	1838
1.49	10.36	9.00	3.98	.....	3.98	4.00	1.14	1.23	23.74	20.65	506
1.82	10.07	9.25	3.97	.....	3.97	4.00	.91	.82	22.03	23.00	928
1.11	9.64	8.50	2.49	.....	2.49	2.00	.90	.82	20.53	18.00	1207
1.33	9.58	9.00	3.62	.....	*3.62	4.00	1.61	1.65	25.12	27.00	556
.97	9.50	9.00	2.17	.....	2.17	2.00	.94	.82	20.34	23.00	557
1.34	10.02	9.00	7.39	.....	7.39	7.00	1.77	1.65	29.77	29.00	554
2.85	10.46	9.00	9.42	.....	*9.42	10.00	1.81	1.65	31.75	30.00	1650
										24.00	1292
2.11	9.37	9.00	2.06	.....	2.06	2.00	*1.45	1.65	19.45	†25.00	555
										22.00	1648

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
1649 1410 1778	†Swift's Pure Truck Grower,	Thomas Haines & Co., Malvern. Fred. Rohling, McKean, Iseman Carriage Co., Clarion,	7.10	7.96	8.00
	TAYLOR PROVISION CO., THE, TRENTON, N. J.				
1671	Special Potato Fertilizer,	J. L. Hibbs, Edgrley,	12.58	8.44	8.00
1670	Standard Grain Grower,	J. L. Hibbs, Edgrley,	13.37	8.82	8.00
	J. M. TEMPLIN, HONEY BROOK, PA.				
1133	No. 8 High Grade Potash Manure,	J. M. Templin, Honey Brook,	11.00	*10.17	11.00
	D. A. THOMAS & CO., HAGERSTOWN, MD.				
1068	Empire,	E. W. Rupp, Shiremanstown,	9.53	8.98	8.00
1040	Keystone Compound,	Nickles & Stewart, Shippensburg.	7.85	9.58	8.00
1038 1069	†Planters Mixture,	Nickles & Stewart, Shippensburg. E. W. Rupp, Shiremanstown,	8.74	9.25	8.00
	I. P. THOMAS & SONS CO., PHILADELPHIA, PA.				
915 1136	†Normal Phosphate,	Wm. J. Moyer, Greenville, J. K. Lewis, Honeybrook,	9.96	9.51	8.50
431 192 918	†Potato Fertilizer,	E. D. Snyder, Lindaville, Mulholland & Dale, Montourville. Wm. J. Moyer, Greenville,	6.68	9.24	9.00
1963	†Special Potato Manure,	J. P. Myers, Longsdorf,	7.10	7.29	7.00
1497 1811	†Superior Super Phosphate,	West & West, Waynesboro, John Davis, St. Johns	16.28	*6.75	7.00
323 256 1298	†Thomas' Wheat and Corn Fertilizer,	Webster Hdw. Co., Newbury, John Engle, Hummelstown, Lamont Berry, Troy,	9.51	10.03	9.00
919 1513	†Truckers High Grade Guano,	Wm. J. Moyer, Greenville, C. R. Henrie & Son, Millville.	8.91	8.80	7.00
490 421 1498	†Victor Potash Manure,	C. H. Kessler, Mabel, Snyder & Bookstader, Foster, West & West, Waynesboro,	8.41	*7.79	8.00
	JAMES THOMAS, WILLIAMSPORT, PA.				
851 704 886 703	†Thomas' Klondyke Brand Phosphate,	John Horning, Pennfield, Keystone Hdw. Co., Reynoldsville. F. E. Shoemaker, Granville Summit. Keystone Hdw. Co., Reynoldsville.	10.27	9.68	9.00
318 850	†Thomas' Potato and Truck Manure,	James Thomas, Larrys Creek, John Horning, Pennfield,	10.43	8.14	8.00
863 888	†Thomas' Special Compound for Wheat, Oats, Corn and Grass.	Smith Bros., Ridgeway, F. E. Shoemaker, Granville Summit.	11.73 11.73	8.94 8.94	9.00 9.00
705 328 852	†Thomas' Standard Brand Phosphate,	Keystone Hdw. Co., Reynoldsville. James Thomas, Williamsport, John Horning, Pennfield,	12.36	8.05	8.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.		Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.			
										22.00	1640
1.30	9.26	9.00	3.56	--------	*3.56	4.00	.96	.82	21.34	†25.00	1410
										25.00	1778
1.08	9.52	--------	9.82	--------	9.82	10.00	2.26	2.06	34.32	31.00	1671
1.34	10.16	--------	2.67	--------	2.67	2.50	1.41	.82	23.44	24.00	1670
1.35	*11.53	12.00	7.28	--------	*7.28	8.00	.78	.82	27.64	26.00	1133
.77	9.75	9.00	8.70	--------	*8.70	10.00	*1.15	1.65	28.34	28.00	1068
.38	9.96	9.00	4.37	--------	4.37	4.00	.85	.82	22.88	21.00	1040
.62	9.87	9.00	5.95	--------	5.95	6.00	.81	.82	24.03	†24.00	1038
										21.00	1069
2.21	11.72	9.50	2.90	--------	2.90	1.50	1.33	1.00	24.60	†20.00	915
										22.00	1136
										30.00	431
1.34	10.58	10.00	5.91	--------	5.91	6.00	*1.44	1.60	27.46	†26.50	192
										28.00	918
1.23	8.52	8.00	10.21	--------	10.21	10.00	1.44	1.60	29.84	--------	1963
1.10	7.85	8.00	1.76	--------	1.76	1.00	.89	.82	17.92	†18.00	1497
										20.00	1811
										23.00	323
.59	10.32	10.00	3.28	--------	3.28	3.00	.85	.82	22.39	†19.50	256
										24.00	1298
.62	9.42	8.00	7.67	--------	7.67	7.00	*2.97	3.25	35.62	†32.00	919
										32.00	1513
										22.00	490
1.38	9.17	9.00	4.83	--------	4.83	5.00	.95	.82	22.53	†--------	421
										24.00	1498
										28.00	851
1.96	11.64	10.00	2.42	--------	*2.42	3.00	1.01	.82	22.48	†24.00	704
										24.00	886
										24.00	703
1.52	9.66	9.00	4.81	--------	4.81	5.00	1.49	1.65	25.53	†28.00	318
										32.00	850
1.50	10.44	10.00	2.46	--------	*2.46	2.00	1.11	1.00	22.03	†25.00	863
										24.00	888
										22.00	705
1.52	9.57	9.00	1.44	--------	1.44	1.00	.95	.82	19.39	†20.00	328
										26.00	852

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
	TRENTON BONE FERTILIZER CO., TRENTON, N. J.				
1677	Ammoniated Dissolved Bone,	Wm. Hobensack, Ivyland,	7.80	8.22	8.00
1674	Keystone Potato Manure,	L. A. Howells, Morrisville,	8.79	8.73	8.00
1672	Special Corn Manure,	L. A. Howells, Morrisville,	8.08	8.90	8.00
1673	Trenton Corn Mixture,	L. A. Howells, Morrisville,	7.96	8.12	7.00
1675	Trenton High Grade Potato Fertilizer,	L. A. Howells, Morrisville,	8.90	7.41	6.00
	JACOB TRINLEY & SONS, LINFIELD, PA.				
1145	Ravene Phosphate for all Crops,	Isaac Hartman, Anselma,	9.02	9.69	9.00
	F. W. TUNNELL & CO., INC., PHILADELPHIA, PA.				
751	Ammoniated Phosphate and Potash,	H. C. Breckbill, Strassburg,	8.53	7.61	7.00
653 1108	†No. 1 Special High Grade Potato Manure.	P. Michael, Mt. Bethel, J. C. Rhoads & Co., Newton Square.	9.96	*7.42	8.00
228 1367	†Potato and Grain Manure,	D. D. Wagner, Easton, Pa., C. E. Rauscher, Blossburg,	13.81	6.84	7.00
752 1375	†Raw and Acidulated Animal Compound.	H. C. Breckbill, Strassburg, A. R. Decker, Mansfield,	8.70	11.35	10.00
895 1103 1315	†Royal Fish Guano,	Jones Eavenson, Christiana, Howard Van Artsdalen, Newton. Carl Nichols, Liberty,	12.14	7.45	7.00
1823 1747 1874	†Sweet and White Potato Manure,	J. A. Yost, Ringtown, Tyson Stauffer, Barto, D. G. Davis, Ebensburg,	6.18	*6.01	7.00
1 1873	†Tunnell's Special High Grade Potato Manure.	Levi Behny, Pine Grove, D. G. Davis, Ebensburg,	11.06	7.14	6.00
	TUSCARORA FERTILIZER CO., BALTIMORE, MD.				
1385	Big Four,	Roy Ackley, Sabinsville,	8.59	8.01	7.00
1224	Crop Grower,	J. I. Yetter, Saylorsburg,	6.92	9.75	8.00
670 795	†Fruit and Potato,	J. I. Yetter, Saylorsburg, Daniel Hollandstein, Milton, R. D. 1.	8.78	8.75	8.00
796 1223	†Sure Grower,	Daniel Hollandstein, Milton, R. D. 1. J. I. Yetter, Saylorsburg,	7.43	*7.63	8.00
1225	York State Special,	J. I. Yetter, Saylorsburg,	8.28	8.08	8.00
	J. E. TYGERT CO., PHILADELPHIA, PA., BY A. A. C. CO., N. Y.				
1358	Early Truck Guano,	Geo. S. Miller, Mifflinville,	9.94	6.97	6.00
131	Golden Harvest Phosphate,	Dufton Hdw. Co., Clearfield,	8.46	8.08	8.00
1859	Potato Fertilizer,	J. Serfoss, Kresgerville,	6.26	7.01	6.00
1360	10 Per Cent. Grain Grower,	Geo. S. Miller, Mifflinville,	9.15	8.04	7.00
140 1359	†Tygert's Ammoniated Super Phosphate.	Jacob Hummel, Bigler, Geo. S. Miller, Mifflinville,	9.90	8.54	8.00
139	Tygert's Gold Edge Potato Guano,	Jacob Hummel, Bigler,	11.36	8.17	7.00
409 696	†Tygert's Standard Fertilizer,	Cyrenus Donnely, Chocnut, Sykesville Hdw. Co., Sykesville	7.38	8.12	8.00
72	Tygert's Victor Crop Grower,	Cyrenus Donnely, Chocnut,	11.01	8.67	8.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen. in 100 lbs.				
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.	Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
2.17	10.39	--------	5.18	--------	5.18	4.00	1.87	1.65	28.03	28.00	1677
.29	9.02	--------	9.94	--------	9.94	10.00	1.97	1.65	32.95	30.00	1674
1.40	10.30	--------	3.85	--------	3.85	3.00	1.67	1.65	26.00	25.00	1672
1.87	9.99	--------	4.40	--------	4.40	3.00	1.97	1.65	27.45	27.00	1673
.77	8.18	--------	8.89	--------	*8.89	10.00	3.15	3.29	36.56	36.00	1675
1.53	11.22	10.00	3.60	--------	3.60	3.00	1.00	1.24	23.49	23.00	1145
.70	8.31	8.00	2.25	--------	2.25	2.00	.46	.21	16.94	20.00	751
.64	*8.06	10.00	9.47	--------	*9.47	10.00	2.88	2.47	35.82	†30.00	653
										32.00	1108
1.13	7.97	8.00	4.36	--------	4.36	4.00	1.70	1.65	24.49	†28.00	228
										28.00	1367
9.64	20.99	20.00	.67	--------	.67	--------	*1.30	1.65	27.51	†28.00	752
										22.00	1375
										27.00	895
.73	*8.18	9.00	4.19	--------	4.19	3.00	*1.68	1.85	24.80	†27.00	1103
										30.00	1315
										30.00	1823
.98	*6.99	8.00	8.32	--------	8.32	8.00	2.00	1.65	29.07	†30.00	1747
										31.00	1874
.57	*7.71	8.00	9.28	--------	*9.28	10.00	*2.19	2.47	32.01	†30.00	1
										33.00	1873
.45	8.46	7.50	4.68	--------	4.68	4.00	1.60	1.65	25.26	25.00	1385
.58	10.33	8.50	2.46	--------	2.46	2.00	.88	.82	21.21	18.50	1221
.62	9.37	8.50	10.62	--------	10.62	10.00	*1.43	1.65	31.39	†28.00	670
										25.00	795
.57	*8.20	8.50	3.32	--------	3.32	3.00	.57	.41	18.48	†15.00	796
										17.50	1223
.60	8.68	8.50	4.33	--------	4.33	4.00	.85	.82	21.42	20.00	1225
1.19	8.16	7.00	2.59	--------	2.59	2.00	3.25	3.29	30.32	28.00	1358
.69	*8.77	9.00	2.69	--------	2.69	2.00	.58	.41	18.64	22.00	131
1.66	8.67	7.00	5.96	--------	5.96	5.00	.74	.82	22.00	24.00	1859
1.61	9.65	8.00	9.67	--------	*9.67	10.00	*1.03	1.23	28.26	28.00	1360
1.66	10.20	9.00	2.44	--------	2.44	1.50	1.27	1.23	22.41	†23.00	140
										21.50	1359
1.28	9.45	8.00	5.01	--------	5.01	5.00	1.80	1.65	27.08	26.00	139
1.68	9.80	9.00	2.92	--------	2.92	2.00	1.69	1.65	24.61	†26.50	409
										24.00	696
1.21	9.88	9.00	4.20	--------	4.20	4.00	.89	.82	22.46	24.00	72

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
	UNION CHEMICAL WORKS, NORTH WALES, PA.				
508 642	†Ideal Potato Manure Planting Brand	H. D. Sittler, Trexlertown, --- John D. Buckman, Newtown,	7.42	9.14	8.00
	UNION CHEMICAL CO., NORTH WALES, PA.				
643 1077	†Ideal Potato Manure, Top Dressing Brand.	John D. Buckman, Newtown, S. Z. Gettle, Myerstown, ---	9.15	8.81	8.00
1530 294 1683	†Potato and Celery Special, ----------	S. Z. Gettle, Reitsville, ------ Frank Dietrick, Friedensburg, Henry K. Mohr, Quakertown,	8.20	7.29	7.00
	UNITED STATES FERTILIZER CO., THE, BALTIMORE, MD.				
580	Farm Bell Animal Ammoniated, ------	M. Gillis, Hughesville, --------	5.98	9.14	8.00
1013 1518	†Farm Bell Buckeye Guano, ----------	W. B. Winney, Middleburg, - W. F. Slagle, Millville, ------	6.10	9.17	9.00
773 579 1016	†Farm Bell Fruit and Potato Guano,	A. W. Kenyon, Clifford, ----- M. Gillis, Hughesville, ------- W. B. Winney, Middleburg ---	6.64	8.93	8.00
870 583 1182	†Farm Bell Pennant Winner, ---------	Harry Baker, Tunkhannock, - M. Gillis, Hughesville, ------- J. C. Birely, New Oxford, ---	7.35	10.61	8.00
1183 1506	†Farm Bell Standard Guano, ---------	J. C. Birley, New Oxford, --- M. F. Bowman, Orangeville, R. D.	5.40	8.55	8.00
	VIRGINIA CAROLINA CHEMICAL CO., FOR RESALE BY RASIN MONUMENTAL CO., BALTIMORE, MD.				
715 986	†V. C. C. Co.'s National Ammoniated Guano.	N. H. Dainer, Brookville, --- Isaac Kunkle, Winfield, ------	10.58	8.57	8.00
717	V. C. C. Co.'s Standard Corn and Grain Grower.	N. H. Dainer, Brookville, -----	9.69	9.16	8.00
718	V. C. C. Co.'s Standard Crop Grower,	N. H. Dainer, Brookville, ----	11.53	*7.65	8.00
	J. C. WALKER & SONS CO., GAP, PA.				
906	Pride of Pequa High Grade, ----------	J. G. Walker & Sons Co., Gap,	6.69	7.61	7.00
907	Pride of Pequa, ----------	J. G. Walker & Sons Co., Gap,	10.53	10.80	10.00
	F. K. WALT CO., READING, PA.				
1351 1742	†Walt's Ammoniated Phosphate, ----	Samuel Shoup, Catawissa, -- A. N. Schoener, Womelsdorf,	12.72	9.42	8.00
1139 7 1353	†Walt's Special Potato Phosphate, ---	F. K. Walt Co., Loag's Corner. J. A. Miller, De Turksville, -- Zehner Bros., Bloomsburg, ---	11.20	10.19	8.00
1352 1146 1741	†Walt's X. X. Flesh Phosphate, -----	Sam'l Shoup, Catawissa, ---- F. K. Walt Co., Loag's Corner. A. N. Schoener, Womelsdorf,	11.01	10.57	8.00

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen in 100 Pounds.		Compound commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.			
.62	9.76	9.00	2.87	7.32	10.19	10.00	*2.98	3.30	39.85	†--------	508
										38.00	642
.70	9.51	9.00	6.10	4.05	10.15	10.00	*2.88	3.30	38.24	†28.00	643
										37.00	1077
										28.00	1530
1.10	8.39	8.00	3.33	7.03	10.36	10.00	1.61	1.65	31.88	†28.00	294
										30.00	1683
.81	9.95	9.00	5.35	--------	5.35	5.00	1.85	1.65	28.46	25.00	580
.70	9.87	10.00	3.30	--------	3.30	2.00	.77	.82	21.04	†20.00	1013
										19.50	1518
										30.00	773
.71	9.64	9.00	10.42	--------	10.42	10.00	1.74	1.65	32.88	†29.00	579
										30.00	1016
										20.00	870
.96	11.57	9.00	4.98	--------	4.98	4.00	*.57	.82	23.41	†20.50	583
										19.00	1182
1.54	10.09	9.00	2.57	--------	2.57	2.00	1.56	1.65	23.91	†20.00	1183
										21.25	1506
1.63	10.20	9.00	4.47	--------	4.47	4.00	.79	.82	22.29	†21.00	715
										18.00	986
1.28	10.44	9.00	2.08	--------	2.08	2.00	.44	.41	18.67	18.00	717
2.04	9.69	9.00	2.17	--------	2.17	2.00	1.80	1.65	24.02	16.00	718
.89	8.50	--------	.93	6.51	*7.44	8.00	2.29	2.47	32.40	29.00	906
.55	11.35	--------	3.21	--------	3.21	3.00	2.45	2.47	30.70	25.00	907
4.02	13.44	9.00	1.29	--------	1.29	1.00	.74	.81	20.89	†17.00	1351
										17.50	1742
										--------	1139
2.29	12.48	9.00	7.22	--------	*7.22	10.00	*1.20	1.64	29.01	†26.00	7
										28.50	1353
										22.00	1352
3.02	13.59	10.00	2.68	--------	*2.68	3.00	*.78	1.64	23.25	†--------	1140
										22.50	1741

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
	W. E. WHANN CO., WILLIAM PENN, PA.				
1682	Whann's Chester Valley Economist Fertilizer.	Milton Johnson, Quakertown,	11.78	9.32	8.00
1104	Whann's Chester Valley 10 Per Cent. Sweet Potato and Tomato Manure.	Ira Cornell, Newtown,	9.60	7.75	7.00
	ROBERT A. WOOLDRIDGE CO., THE, BALTIMORE, MD.				
620	†Wooldridge's Champion Giant Phosphate.	S. B. Jackson, Carlysle,	11.67	9.40	9.00
470		Dershowe & Bennoge, White Deer.			
1796		S. S. Sheller, Duncannon,			
471	Wooldridge's Fernwood Grange Mixture.	Dershowe & Bennoge, White Deer.	10.13	8.40	8.00
			10.13	8.40	8.00
440	†Wooldridge's Special Potato and Tobacco Fertilizer.	W. V. Shirk, Oakland Mills,	10.81	9.25	9.00
622		S. B. Jackson, Carlysle,			
619	Wooldridge's Triumph Brand Phosphate.	S. B. Jackson, Carlysle,	11.14	8.03	8.00
	WOOLDRIDGE FERTILIZER CO., THE, BALTIMORE, MD.				
1725	F. F. V. Flesh & Fish Vegetator,	E. O. Hacker, Lincoln, Pa.,	8.70	7.38	7.00
1512	Tiger Phosphate,	Grant Johnson, Millville,	9.30	8.90	8.00
	YORK CHEMICAL WORKS, YORK, PA.				
373	Dempwolf's Harvest Queen,	G. Eddleman, Siegfried,	10.95	9.39	8.00
375	†Potato Manure,	G. Eddleman, Siegfried,	9.20	6.52	6.00
125		B. J. Crissman, Curwensville,			
685		Peffer & Sons, Punxsutawney,			
1175	†Potato and Truck Special,	Henry N. Berkheimer, Abbottstown.	9.89	7.97	8.00
163		A. T. Baird, Salona, R. D.,			
1740		Wm. J. Johnson, Sinking Springs.			
1763	†Spring Special,	J. H. Edminston, Petersburg,	9.56	7.07	7.00
1003		E. N. Erdly, Salem,			
1817		Lindner Swank, Ringtown,			

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen in 100 Pounds.		Compound commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.			
1.20	10.52	9.00	2.17	.....	2.17	2.00	.52	.41	19.06	.....	1682
1.24	8.99	8.00	10.34	.....	10.34	10.00	*1.45	1.65	30.43	29.00	1104
1.05	10.45	10.00	2.18	.....	2.18	2.00	.92	.82	21.06	19.75 †19.00	620 470
.93	9.33	9.00	7.71	.....	*7.71	8.00	1.68	1.65	29.44	22.00 26.00	1796 471
.94	10.19	10.00	5.68	.....	5.68	5.00	1.69	1.65	27.81	†25.00	440
1.59	9.62	9.00	4.00	.....	4.00	4.00	1.37	1.23	23.89	26.00 22.50	622 619
1.19	8.57	7.50	6.56	.....	*6.56	7.00	*2.19	2.47	29.72	30.00	1725
1.02	9.92	8.50	4.49	.....	4.49	4.50	1.24	1.03	24.56	22.00	1512
1.17	10.56	8.50	2.14	.....	2.14	2.00	.77	.82	20.34	19.00	373
1.03	7.55	6.50	6.92	.....	6.92	7.00	.77	.82	22.18	22.50 †23.00 28.00 31.00	375 125 685 1175
1.21	9.18	9.00	.67	6.30	6.97	7.00	2.38	2.47	32.88	†29.00	163
1.71	*8.78	9.00	9.02	.....	*9.02	10.00	1.58	1.65	29.32	31.00 21.00 †28.95 27.00	1740 1763 1003 1817

*Constituent falls below guaranty.

ROCK AND POTASH

Furnishing Phosphoric

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available Found.	Phosphoric Available Guaranteed.
	AMERICAN AGRICULTURAL CHEMICAL CO., THE, NEW YORK, N. Y.				
6 1501	†High Grade Potash Mixture,	John A. Miller, De Turksville, H. S. Rittenhouse, Berwick,	9.69	10.29	10.00
577 509 1489	†High Grade Phosphate and Potash,	C. L. Shipman, Hughesville, J. Geissler, Tressiertown, J. A. Witherspoon, Mercersburg.	11.58	12.37	12.00
357 67 720	†Bradley's Alkaline Phosphate and Potash.	G. R. Andrews, Enon Valley, J. E. Lynch, Friendsville, J. P. Jones, Summerville,	9.45	9.87	10.00
966	Clark's Cove Triumph Phosphate and Potash.	Isaac M. Sheeetz, Sunbury, R. D. 4.	10.60	10.61	10.00
861 930	†Crocker's Dissolved Phosphate and Potash.	C. O. Salsburg, Ridgeway, Edgar Waters, Jamestown,	11.01	11.83	10.00
1584	Detrick's Soluble Phosphate and Potash.	Levi Berkey, Somerset,	12.27	10.71	10.00
514 967	†Lazaretto Dissolved Phosphate and Potash.	H. F. Rupp, Sipestown, Gonser Bros., Snydertown,	12.58	10.61	10.00
1554 1915	†Maryland Bono Super Phosphate,	S. M. Shuyler & Son, Liverpool. Smith & McElvey, Blairsville,	10.11	10.44	10.00
1553	Maryland Linden Super Phosphate,	S. M. Shuyler & Son, Liverpool.	9.92	11.79	11.00
378	Michigan Carbon Works Red Line Phosphate with Potash.	T. Kunkle, Easton,	10.48	9.97	10.00
78 379	†Michigan Carbon Works Wheat and Grass Fertilizer.	Wm. Howe, York Springs, T. Kunkle, Easton,	10.09	8.76	8.00
227 1781	†Milsom's Dissolved Phosphate and Potash.	W. H. Mitman, Easton, R. F. D. 4. Iseman Carriage Co., Clarion,	10.64	10.40	10.00
992 759 1042	†Moro-Phillips Alkaline Phosphate,	J. E. Bonst, Shamokin Dam, New Providence Coal Co., New Providence. Nickles & Stewart, Shippensburg.	9.67	10.48	10.00
890	Moro-Phillips Great Crop Fertilizer,	B. F. Walter, Christiana,	10.25	8.81	8.00
300	Moro-Phillips Wheat Special,	H. H. Geist, Higgins,	12.02	10.35	10.00
923	Northwestern Dissolved Phosphate and Potash.	Greenville Coal & Ice Co., Greenville.	9.13	10.64	10.00
793 338 1581	†Northwestern X. X. X. Alkaline Phosphate.	H. L. Lindner, Milton, R. D. 1. Donaldson Hardware Co., Beaver. Jefferson Altfather, Berlin,	13.06	10.26	10.00
598	Packer's Union Banner Wheat Grower,	James Bannen, Turbotville, R. D. 7.	10.05	10.96	10.00
1687	Reese's Wheat Special,	Elvin Horne, Perkasie,	12.52	10.42	10.00
158 435	†Susquehanna Grain and Grass Producer.	J. N. Getz Co., Lock Haven, B. F. Jymon, Thompsontown,	11.39	12.05	12.00
115 601	†Susquehanna High Grade Phosphate and Potash.	Z. J. Peters, Gernsey Station, S. L. Sheetz, Halifax,	10.87	12.56	12.00
1249	Sharpless & Carpenter's Soluble Phosphate and Potash.	Jonas Kunkle, McKeansburg,	10.49	10.13	10.00
542 69 855	†Wheeler's High Grade Phosphate and Potash.	Joseph Kinsley, Osterburg, Jas. Houghton, St. Joseph, Alvin Shugerts, Luthersburg,	10.95	11.94	12.00

†Composite sample.

FERTILIZERS.

Acid and Potash.

Acid in 100 Pounds.			Potash in 100 Pounds.				Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.				
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.			
.88	11.17	11.00	9.38	.....	*9.38	10.00	21.71	†21.50	6
								20.00	1501
								19.00	577
.89	13.26	13.00	5.51	.....	5.51	5.00	19.23	†18.00	509
								18.00	1489
								17.00	357
1.43	11.30	11.00	3.34	.....	3.34	2.00	15.44	†16.00	67
								16.00	720
1.06	11.67	11.00	2.24	.....	2.24	2.00	14.71	.....	966
								20.00	861
1.87	13.70	11.00	1.95	.....	1.95	2.00	15.60	16.00	930
.47	11.18	11.00	2.12	.....	2.12	2.00	14.43	15.00	1584
.91	11.52	11.00	2.39	.....	2.39	2.00	14.80	†13.50	514
								15.00	967
1.57	12.01	11.00	1.96	.....	1.96	2.00	14.48	†15.00	1554
								18.00	1915
.83	12.62	12.00	1.95	.....	1.95	2.00	15.18	15.50	1553
1.23	11.20	11.00	2.43	.....	2.43	2.00	14.52	13.75	378
.33	9.09	9.00	4.93	.....	4.93	5.00	15.88	†15.00	78
								15.00	379
1.38	11.78	11.00	2.56	.....	2.56	2.00	15.00	†13.50	227
								20.00	1781
								13.40	992
.82	11.30	11.00	2.24	.....	2.24	2.00	14.54	†14.00	759
								15.00	1042
.59	9.40	9.00	5.42	.....	5.42	5.00	16.47	15.50	890
1.12	11.47	11.00	2.32	.....	2.32	2.00	14.60	21.00	300
2.17	12.81	11.00	2.30	.....	2.30	2.00	15.20	17.00	923
								16.00	793
.83	11.09	11.00	5.04	.....	5.04	5.00	17.24	†25.00	338
								19.00	1581
.83	11.79	11.00	2.31	.....	2.31	2.00	14.95	16.40	598
1.28	11.70	11.00	2.18	.....	2.18	2.00	14.60	16.00	1687
1.25	13.30	13.00	3.24	.....	3.24	3.00	16.84	†21.00	158
								17.00	435
.88	13.44	13.00	4.98	.....	4.98	5.00	18.86	†20.00	115
								19.20	601
.87	11.00	11.00	3.81	.....	3.81	2.00	13.46	14.00	1249
								19.00	542
1.40	13.34	13.00	5.11	.....	5.11	5.00	18.72	†21.00	69
								19.00	855

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available Found.	Phosphoric Available Guaranteed.
148 52 535	†Wheeler's Wheat and Clover Fertilizer	J. A. Gummo, Millhall, R. D. 1. H. B. Chaffee, Potterville, L. R. Over, Loysburg,	10.74	10.57	10.00
27 1922	†Williams & Clark's Dissolved Phosphate and Potash.	G. E. Corl, State College, McConnell & Luther, Kittanning.	12.68	10.42	10.00
36 1760	†Zell's Electric Phosphate,	W. V. Shirk, Oakland Mills, James Blair, Neffs Mills,	10.60	10.76	10.00
	AMERICAN FERTILIZER CO., BALTIMORE, MD.				
28 898	†American Formula Wheat and Corn,	J. H. Neidigh & Son, State College. Jones Eavenson, Christiana,	10.00	10.53	10.00
26 896	†Dissolved Phosphate and Potash,	J. H. Neidigh & Son, State College. Jones Eavenson, Christiana,	8.50	9.93	10.00
1474	American Special Potash Mixture,	J. W. Blatfelter, Ropsville,	8.45	8.39	8.00
29 1471	†American Special Super Phosphate,	J. H. Neidigh & Son, State College. Lauer & Fissel, Dover,	9.71	8.44	6.00
	ATLANTIC FERTILIZER CO., BALTIMORE, MD.				
603	Atlantic High Grade Potash Compound.	J. C. Lebo, Millersburg,	9.64	12.05	12.00
	ARMOUR FETILIZER WORKS, BALTIMORE, MD.				
567 51 848	†Banner Brand,	E. E. Tribby, West Middlesex, Windham Farmers' Club, Nichols, N. Y. Heebner, Hoover & Co., Du Bois.	8.35	10.01	10.00
1325 712 1621	†Potash Mixture,	Albee & Seitz, Port Allegany, B. W. Fetzer, Brookville, P. M. Kaster, Rimmersburg,	6.11	6.32	6.00
681 672 909	†Sure Crop,	Peffer & Son, Punxsutawney, J. I. Yetter, Saylorsburg, J. G. Walker & Sons Co., Gap	7.34	9.30	8.00
	BALTIMORE FERTILIZER CO., BALTIMORE, MD.				
87	Honest 8 and 3,	J. N. Leightner & Son, Gettysburg.	8.73	8.39	8.00
	BAUGH & SONS CO., PHILADELPHIA, PA.				
156 101 187	†Baugh's High Grade Potash Mixture,	E. H. Hays, Lamar, H. D. & Z. F. Breen, Gettysburg. E. H. Kean & Co., Parksburg.	8.60	10.29	10.00
189 153 493	†Baugh's Soluble Alkaline Super Phosphate.	E. H. Kean & Co., Parksburg. E. H. Hays, Tylersville, A. K. Mohr, Coopersburg,	7.47	10.62	10.00

†Composite sample.

FERTILIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.				
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.			
1.12	11.69	11.00	2.27	.....	2.27	2.00	14.72	15.00	148
								†16.00	52
								15.50	535
.51	10.93	11.00	2.17	.....	2.17	2.00	14.30	†14.60	27
								20.00	1922
.62	11.38	11.00	2.30	.....	2.30	2.00	14.73	†14.50	36
								20.00	1760
1.16	11.69	11.00	5.37	.....	5.37	5.00	17.88	†16.00	28
								16.00	898
1.10	11.03	11.00	2.04	.....	2.04	2.00	14.65	†14.00	26
								13.00	896
1.21	9.60	9.00	4.18	.....	4.18	4.00	15.16	16.00	1474
.92	9.36	7.00	3.19	.....	3.19	3.00	14.07	†13.50	29
								14.00	1471
2.09	14.14	13.00	4.94	.....	4.94	5 00	18.88	17.25	603
								24.00	567
.61	10.62	10.50	8.08	.....	8.08	8.00	20.08	†18.50	51
								24.00	848
								16.00	1325
.41	6.73	6.50	3.15	.....	3.15	3.00	12.30	†15.00	712
								17.00	1621
								20.00	681
.99	10.29	8.50	4.26	.....	*4.26	5.00	15.79	†15.00	672
								16.00	909
.97	9.36	9.00	3.04	.....	3.04	3.00	13.90	16.00	87
								17.65	156
1.05	11.34	.....	4.46	.....	4.46	4.00	16.73	†17.00	101
								16.00	187
								14.00	189
1.75	12.37	.....	2.43	.....	2.43	2.00	15.16	†16.90	153
								17.00	493

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available Found.	Phosphoric Available Guaranteed.
	BOWKER FERTILIZER CO., NEW YORK CITY.				
962	†Bowker's Empire State Phosphate and Potash.	Peter Weiser, Sunbury, R. D. 3	8.76	9.15	8.00
134		J. M. McDowell, Woodland,			
1094		Kernoehan, Titusville,			
1425	†Bowker's Golden Harvest Fertilizer,	Robt. Smith, Spring Mills,	9.73	12.44	12.00
1549		Geo. N. Straek, Mt. Zion,			
654	†Bowker's Super Phosphate with Potash.	A. C. Snyder, Bangor,	11.99	10.18	10.00
301		N. D. Yoder, Higgins,			
1232		Murray Co., Honesdale,			
486	Bowker's Super Phosphate with Potash for Grass and Grain.	Geo. Maurer, Pitman,	11.85	10.38	10.00
	BUFFALO FERTILIZER CO., THE, BUFFALO, N. Y.				
842	†Extra Phosphate and Potash,	E. H. Harman, DuBois,	12.06	10.04	10.00
200		E. A. Dane, Chiearo,			
926		Asa McDonald, Greenville,			
584	†General Crop,	M. Gillis, Hughesville,	9.64	8.91	9.00
56		C. Werkheizer, Potterville,			
701		Reynoldsville Hardware Co., Reynoldsville.			
	CENTRAL CHEMICAL CO., THE, HAGERSTOWN, MD.				
1051	†C. C. C. Majestie,	John K. Bidler & Son, Oakville.	7.62	9.39	8.00
1478		D. W. Foust & Son, Chambersburg.			
1477	Eastern Star,	D. W. Foust & Son, Chambersburg.	7.90	10 95	10.00
	COE-MORTIMER CO., THE, NEW YORK, N. Y.				
239	†E. Frank Coe's High Grade Dissolved Phosphate and Potash.	T. F. Kinsman, Hellertown,	6.94	*7.53	8.00
1261		A. H. Cobleigh, Alderson,			
	JOSIAH COPE & CO., BALTIMORE, MD.				
546	†Cope's Soluble Phosphate and Potash	W. H. Beaver, Schellsburg,	11.36	10.76	10.00
892		Jones Eavenson, Christiana,			
893	†Cope's High Grade Phosphate and Potash.	Jones Eavenson, Christiana,	9.77	10.49	10.00
676		Geo. Ehret, Coal Hill,			
1414		M. H. Grove, Bellefonte,			
	EUREKA FERTILIZER CO., PERRYVILLE, MD.				
512	Alkaline No. 2,	Jonas P. Aeker, Breinigsville,	12.32	10.57	10.00
438	†Alkaline No. 8,	D. B. Dumm, Thompsontown,	7.51	8.92	8.00
616		L. Arnold, Elizabethville,			
836	Crop Grower,	A. N. Witter, Waterfall,	5.34	7.50	6.00
	FARMERS FERTILIZER WORKS, ELIZABETHTOWN, PA.				
34	Farmer's Economy,	W. V. Shirk, Oakland Mills,	8.91	10.14	10.00

†Composite sample.

FERTILIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.				
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.			
								15.00	962
1.11	10.26	9.00	3.66	----------	3.66	3.00	15.10	†17.00	134
								20.00	1094
1.42	13.86	13.00	4.99	----------	4.99	5.00	18.97	†20.50	1425
								---------	1549
								15.20	654
1.05	11.23	11.00	1.69	----------	1.69	1.00	13.87	14.50	301
								16.20	1232
1.49	11.87	11.00	2.16	----------	2.16	2.00	14.59	16.00	486
								22.00	842
1.08	11.12	11.00	7.44	----------	*7.44	8.00	19.59	†21.00	200
								23.00	926
								16.00	584
1.02	9.93	10.00	3.80	----------	3.80	3.00	15.07	†16.50	56
								18.00	701
.33	9.72	9.00	5.80	----------	5.80	5.00	17.22	†16.50	1051
								15.00	1478
.82	11.77	11.00	2.71	----------	*2.71	4.00	15.33	15.50	1477
.77	*8.30	9.00	5.32	----------	5.32	5.00	15.52	†15.00	239
								15.25	1261
.64	11.40	11.00	2.26	----------	2.26	2.00	14.67	†14.10	546
								14.00	892
								17.00	893
1.11	11.60	11.00	5.53	----------	5.53	5.00	18.02	†22.00	676
								16.00	1414
1.85	12.42	11.00	2.24	----------	2.24	2.00	14.96	16.00	512
1.16	10.08	9.00	6.25	----------	*6.25	8.00	17.64	---------	438
								20.00	616
.85	8.35	7.00	2.45	----------	*2.45	3.00	12.61	26.00	836
1.34	11.48	----------	2.22	----------	2.22	2.00	14.44	15.00	34

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available Found.	Phosphoric Available Guaranteed.
	W. S. FARMER & CO., BALTIMORE, MD.				
1009 1578	†W. S. Farmer's B. & P. Phosphate,	J. A. Eichman, Globe Mills, P. J. Cover & Son, Meyersdale	12.25	10.62	10.00
	GRIFFITH & BOYD CO., BALTIMORE, MD.				
749 102 806	†Special Grain Grower,	W. C. Herr, Strasburg, H. J. VanDyke, Gettysburg, Hartley & Blain, Curbottsville	10.41	10.45	10.00
434 336 1459	†X. X. Potash Manure,	W. H. Kauffman, Mexico, John Artley, Muncy, J. C. Leib & Co., Stewartstown.	10.70	*8.87	10.00
	S. M. HESS & BRO., INC., PHILADELPHIA, PA.				
452 935	†Farmers Grain and Clover Grower,	J. R. Iddings, Mifflinburg, Cambridge Springs Supply Co., Cambridge.	8.74	10.19	10.00
453 252 491	†Soluble Phosphate and Potash,	J. R. Iddings, Mifflinburg, T. S. Manning, Middletown, Daniel Kimmer, Mabel,	10.20	10.23	10.00
467 669	†Standard Alkaline,	Thomas E. Spangler, Vicksburg. J. Wernhart, Saylorsburg,	7.72	8.91	8.00
605	Emperor Phosphate,	Harvey Smeltzer, Millersburg,	9.53	10.72	10.00
	HUBBARD FERTILIZER CO., THE, BALTIMORE, MD.				
1461 1588	†Hubbard's Corn and Buckwheat,	D. G. Trout, Stewartstown, S. B. Alcott, Ursina,	7.86	7.75	6.00
162 109 611	†Hubbard's Special Mixture,	W. A. Esenwine, Salona, Biglerville Warehouse Co., Biglerville. J. A. Romberger, Elizabethville.	11.20	10.47	10.00
	JARECKI CHEMICAL CO., SANDUSKY, OHIO.				
214	Black Soil Special,	S. P. Marsh, Ten Mile Bottom,	8.60	8.03	8.00
	KEYSTONE BONE FERTILIZER CO., THE, PHILADELPHIA, PA.				
1366 1750	†Keystone 8 and 5,	C. E. Rauscher, Blossburg, L. A. Geiger, Joanna,	9.30	8.63	8.00
220	Keystone 10 and 2,	W. S. Weaver, Easton,	8.20	9.93	10.00
	LANCASTER CHEMICAL CO., THE, LANCASTER, PA.				
77 757	†No. 13 Special Potash Manure,	Amos F. Bushy, York Springs, A. L. Herr, Parryville,	10.20	*9.29	10.00
	LISTER AGRICULTURAL CHEMICAL WORKS, NEWARK, N. J.				
350 235 499	†Lister's Dissolved Phosphate and Potash.	D. E. Gamble, Monongahela, Sylvestus Gair, Easton, R. D. Sames, Coopersburg,	10.60	9.94	10.00
306 1417	†Lister's Grain and Grass Fertilizer,	J. C. Boyer, Klingerstown, John Dale, Bellefonte, R. D.,	11.10	9.66	9.00
498 987	†Lister's 10 Per Cent. Alkaline Potato Fertilizer.	R. D. Sames, Coopersburg, B. F. Dock, Winfield,	8.88	8.69	8.00

†Composite sample.

FERTILIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.						
	Total.				Total.				
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
.56	11.18	11.00	2.38	----------	2.38	2.00	14.72	†14.20	1009
								18.00	1578
								15.00	749
2.13	12.58	11.00	2.70	----------	2.70	2.00	15.46	†15.00	102
								14.50	806
								16.00	434
3.05	11.92	11.00	5.48	----------	5.48	5.00	17.49	†18.00	336
								16.00	1459
1.47	11.66	11.00	8.27	----------	8.27	8.00	20.68	†19.75	452
								24.00	935
								14.75	453
.92	11.15	11.00	2.48	----------	2.48	2.00	14.66	†15.00	252
								18.00	491
1.08	9.99	9.00	4.65	----------	*4.65	5.00	15.94	†16.00	467
								17.00	669
.97	11.69	11.00	1.24	----------	1.24	1.00	13.76	14.50	605
1.35	9.10	7.50	3.61	----------	3.61	3.00	14.14	†16.00	1461
								17.00	1588
								18.00	162
1.30	*11.77	12.00	4.42	----------	4.42	4.00	16.88	†16.00	109
								16.00	611
.87	8.90	9.00	7.44	----------	*7.44	8.00	18.10	30.00	214
1.01	9.64	9.00	4.92	----------	4.92	5.00	15.99	†19.00	1366
								----------	1750
1.05	10.98	11.00	1.97	----------	1.97	2.00	13.94	18.00	220
2.58	11.87	11.00	4.83	----------	4.83	5.00	16.98	†16.00	77
								----------	757
								28.00	350
.83	*10.77	11.00	2.36	----------	2.36	2.00	14.28	†16.00	235
								18.00	499
.59	10.25	10.00	5.07	----------	5.07	5.00	16.71	†16.25	306
								15.35	1417
.76	9.45	9.00	10.79	----------	10.79	10.00	21.96	†23.00	498
								19.25	987

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available Found.	Phosphoric Available Guaranteed.
	FREDERICK LUDLAM CO., THE BALTIMORE, MD.				
746	Ludham's Ceerops Fertilizers, I. X. L. Brand.	Wm. J. Hess, Quarryville,	9.40	8.68	8.00
	D. B. MARTIN CO., PHILADELPHIA, PA.				
449 1193	†Martin's Potash and Soluble Phosphate, 6-3.	Samuel K. Striekler, Mifflinburg. A. P. Lippy, Littlestown,	8.75	7.10	6.00
222 1019	†Martin's Potash and Soluble Phosphate, 8-5.	E. J. Houck, Easton, T. J. Mornyer, Lewistown,	12.37	9.67	8.00
450 652	†Martin's Potash and Soluble Phosphate, 10-2.	Samuel K. Strickler, Mifflinburg. E. J. Houck, Bangor,	11.97	10.29	10.00
606 1165	†Martin's Potash and Soluble Phosphate, 12-3.	John Zimmerman, Millersburg, H. Cooke & Co., Dillsburg,	13.83	11.87	12.00
451 1144	†Martin's Potash and Soluble Phosphate, 12-5.	Samuel K. Striekler, Mifflinburg. J. P. Stoltzfus, Elverson,	11.85	*11.68	12.00
	MILLER FERTILIZER CO., BALTIMORE, MD.				
943 468 1196	†Clinch Phosphate,	Chas. Huston, Three Springs, Peter Hause, New Columbia, Chas. G. Carbaugh, Hanover,	8.34	10.37	10.00
48 1170	†Miller's Potash Mixture,	D. A. Robinson, Port Royal, A. D. Browne, East Berlin,	9.11	9.86	10.00
981	Special Alkaline,	N. G. Adams, Elysburg,	7.69	8.24	8.00
	NASSAU FERTILIZER CO., NEW YORK CITY, N. Y.				
821 385 990	†Grass and Grain Fertilizer,	A. M. McClure, Everett, J. T. Foulk & Co., Houtzdale. Harvey M. Walters, Kratzville	9.15	10.64	10.00
457 411 823	†Royal Mixture,	J. T. Sanders, Mifflinburg, Matt Griffith, Montrose, A. M. McClure, Everett,	8.19	8.47	8.00
154 68 1025	†Ten and Eight Special,	C. T. Krape, Nittany, Matt Griffith, St. Joseph, John D. Graybill & Sons, Bellville.	9.39	10.25	10.00
	PATAPSCO GUANO CO., BALTIMORE, MD.				
88	Patapsco Alkaline Plant Food,	E. C. Thomas, Gettysburg,	9.56	8.63	8.00
1552 91 1794	†Patapsco Phospho Potash,	H. F. Zehring, Liverpool, E. C. Thomas, Gettysburg, Jaeob Fritz, New Bloomfield,	7.81	6.47	6.00
	J. D. PERKINS, COATESVILLE, PA.				
173	Perkins Globe Phosphate,	Edward Tringley, Kelton,	11.84	9.90	10.00
	PIEDMONT MT. AIRY GUANO CO., BALTIMORE, MD.				
76	Leverings I. X. L. Crop Grower,	D. S. Stitzel, York Springs,	7.29	10.02	10.00
96	Piedmont Soluble Phosphate and Potash.	H. D. & J. F. Bream, Gettysburg.	6.50	8.94	8.00

†Composite sample.

FERTILIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.						
	Total.				Total.				
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
.82	9.50	9.00	4.99	----------	4.99	5.00	16.05	16.00	746
.57	7.67	----------	3.30	----------	3.30	3.00	13.09	†11.98	449
								15.00	1193
.84	10.51	----------	4.54	----------	*4.54	5.00	16.27	†16.00	222
								17.00	1019
.83	11.12	----------	2.10	----------	2.10	2.00	14.24	†12.98	470
								13.50	652
.83	12.70	----------	3.01	----------	3.01	3.00	16.30	†15.00	606
								16.50	1165
.57	12.25	----------	5.46	----------	5.46	5.00	18.58	†15.98	451
								18.00	1144
								15.00	943
.70	11.07	10.50	2.59	----------	2.59	2.00	14.76	†16.00	468
								14.40	1196
.80	10.66	10.50	5.71	----------	5.71	5.00	17.60	----------	48
								15.75	1170
.61	8.85	8.50	4.87	----------	4.87	5.00	15.56	18.00	981
								15.00	821
.66	11.30	11.00	2.71	----------	2.71	2.00	15.07	†21.00	385
								----------	990
								15.50	457
.61	9.08	9.00	6.33	----------	6.33	5.00	17.18	†16.00	411
								18.00	823
								----------	154
.74	10.99	11.00	8.07	----------	8.07	8.00	20.26	†22.75	68
								21.00	1025
.77	9.40	9.00	4.95	----------	4.95	5.00	15.96	15.50	88
1.15	7.62	7.00	1.89	1.16	3.05	3.00	12.79	13.75	1552
								†14.00	91
								15.00	1794
1.10	11.00	----------	2.23	----------	2.23	2.00	14.22	17.00	173
1.03	11.05	----------	2.62	----------	*2.62	3.00	14.64	14.75	76
.94	9.88	----------	1.73	----------	*1.73	2.00	12.98	15.50	96

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available Found.	Phosphoric Available Guaranteed.
	POLLOCK FERTILIZER CO., THE, BALTIMORE, MD., BY A. A. C. C., N. Y.				
441 1044	†Pollock's Sun Guano,	W. H. Seiver, McAlisterville, J. D. Garman, Shippensburg,	9.01	10.57	10.00
	RASIN MONUMENTAL CO., BALTIMORE, MD.				
840 532 1200	†Rasin's Phosphate and Potash,	H. E. Huston, Saltillo, H. J. Deal, Bedford, J. D. Markle, Hanover,	8.82	10.22	10.00
1006 117 1547	†Rasin's Wheat and Truck Mixture,	A. D. Kramer, Kramer, Aspers Milling & Produce Co., Bendersville Station. A. G. Houtz, Truckville,	9.92	10.26	10.00
	ROBERT A. REICHARD, ALLENTOWN, PA.				
1860	Farmer's Favorite,	R. S. Kemmerer, Bowmans,	8.71	8.26	8.00
	F. S. ROYSTER GUANO CO., BALTIMORE, MD.				
1971	†High Grade Potash Mixture,	Preston Bros., Troy, Pa.,	5.51	10.59	10.00
21 18 1045	†Peerless Grain and Grass Grower,	E. R. Behny, Snedburg, E. R. Behny, Snedburg, J. S. Craig, Shippensburg,	6.81	10.56	10.00
380 1345	†Royster's Alkaline Phosphate,	A. W. Sandt, Martins Creek, N. C. Creasy, Catawissa,	5.56	6.17	6.00
168 1021	†Royster's Bumper Crop Phosphate,	E. E. Heckman, Salona, M. K. Stoltzfus, Bellville,	6.29	8.08	8.00
1966	†Royster's Special Fruit and Crop Grower.	Heffner & Savidge, Kutztown,	9.51	10.28	10.00
874	Royster's Standard Crop Phosphate,	L. F. Marcy, Monroetown,	8.35	9.69	9.00
414 1143	†Royster's Superior Potash Mixture,	B. C. Tourgee, New Milford, John B. McGowan, Elverson,	11.76	12.45	12.00
1173 165 1734	†Royster's X. X. X. Alkaline Phosphate.	John W. King, East Berlin, E. E. Heckman, Salona, L. K. Gruber, Reynolds,	7.03	9.89	10.00
	SCOTT FERTILIZER CO., THE, ELKTON, MD.				
737 1073	†Scott's Tip Top and Potash,	S. Book & Bros., Quarryville, Elias Brubacker, Richland,	11.76	*9.80	10.00
	SOUTHERN FERTILIZER CO., YORK, PA., BY A. A. C. Co., N. Y.				
507	Special Brand for All Crops,	Bastian & Romig, Wescoville,	11.00	11.50	10.00
	STEININGER BROS., MIDDLEBURG, PA., BY A. A. C. CO., THE, N. Y.				
444	Grain and Grass,	Steininger Bros., Middleburg,	8.94	*5.47	6.00
445	Special Mixture,	Steininger Bros., Middleburg,	7.45	*5.11	6.00

†Composite sample.

FERTILIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.				
Insoluble.	Found.	Guaranteed.	Present as muriate.	present as sulphate.	Found.	Guaranteed.			
.92	11.49	11.00	5.95	----------	5.95	6.00	18.43	18.50	441
								19.50	1044
								17.00	840
1.47	11.69	11.00	2.49	----------	2.49	2.00	14.84	†15.00	532
								14.50	1200
								19.00	1006
1.53	11.79	11.00	8.22	----------	8.22	8.00	20.71	†20.00	117
								20.00	1547
1.01	9.27	9.00	4.86	----------	4.86	5.00	15.64	18.00	1860
.70	11.29	11.00	10.68	----------	10.68	10.00	23.20	†25.00	1971
								16.00	21
.63	11.19	11.00	2.35	----------	2.35	2.00	14.65	†16.00	18
								----------	1045
.45	*6.62	7.00	3.19	----------	3.19	3.00	12.26	†13.00	380
								15.00	1345
.48	*8.56	9.00	5.28	----------	5.28	5.00	15.82	†15.20	168
								16.75	1021
.70	10.98	11.00	*7.79	----------	*7.79	8.00	20.02	20.00	1906
.69	10.38	10.00	4.95	----------	4.95	5.00	16.49	18.00	874
.13	*12.58	13.00	5.24	----------	5.24	5.00	18.78	†20.00	414
								18.00	1143
								16.50	1173
.62	*10.51	11.00	5.26	----------	5.26	5.00	17.10	†17.00	165
								18.00	1734
1.50	11.30	----------	2.31	----------	2.31	2.00	14.35	†14.00	737
								15.50	1073
1.08	12.58	11.00	5.62	----------	*5.62	6.00	18.79	16.60	507
.61	*6.08	7.00	2.94	----------	2.94	3.00	11.59	15.00	444
.45	*5.56	7.00	2.78	----------	*2.78	3.00	11.10	13.00	445

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available Found.	Phosphoric Available Guaranteed.
	SWIFT & CO., OHIOAGO, ILL.				
1779	Swift's Pure Diamond G. Fertilizer,	Iseman Carriage Co., Clarion,	12.82	11.35	10.00
1098	Swift's Pure High Grade Phosphate and Potash.	J. H. Rickembrode, Hydetown,	10.41	10.30	10.00
1400	Swift's Pure Special Phosphate and Potash.	Charles Beekman, Fairview,	9.34	10.64	10.00
	D. A. THOMAS & CO., HAGERSTOWN, MD.				
1488	Potash Special,	J. A. Witherspoon, Mercersburg.	7.61	12.84	12.00
	I. P. THOMAS & SONS CO., PHILADELPHIA, PA.				
60	Special Alkaline Fertilizer,	F. E. Van Orinald, Leraysville.	9.59	10.33	10.00
489 62 920	†Special Corn Fertilizer,	C. H. Kestler, Mabel, F. E. Van Orinald, LeRaysville. Wm. J. Moyer, Greenville,	9.85	10.13	10.00
61 191	†Thomas' Square Deal Phosphate,	F. E. Van Orinald, Le Raysville. Mulholland & Dale, Mortonville.	8.08	9.28	9.00
	JAMES THOMAS, WILLIAMSPORT, PA.				
1322 887 1774	†Thomas' Dissolved Alkaline Phosphate.	Coryell & Russ Co., St. Marys. F. E. Shoemacher, Granville Summit. McEwen Hardware Co., New Bethlehem.	11.47	11.87	10.00
	F. W. TUNNELL & CO., INC., PHILADELPHIA, PA.				
219	Gehmans Special,	W. S. Weaver, Easton,	12.17	13.05	13.00
	TUSCARORA FERTILIZER CO., BALTIMORE, MD,				
671	Alkaline,	J. I. Yetter, Saylorsburg,	9.65	10.16	10.00
	J. E. TYGERT & CO., THE, PHILADELPHIA, BY A. A. C. CO., THE, N. Y.				
137 5 698	†Tygert's Soluble Phosphate and Potash.	Jacob Hummel, Bigler, Robert Schaffer, Rock, Sykesville Hardware, Sykesville.	10.72	10.52	10.00
	UNITED STATES FERTILIZER CO., THE, BALTIMORE, MD.				
581 1015	†Farm Bell Alkaline Mixture,	M. Gillis, Hughesville, W. B. Whinney, Middleburg,	7.21	9.43	9.40
1014 582 1181	†Farm Bell Phosphate and Potash,	W. B. Whinney, Middleburg, M. Gillis, Hughesville, J. C. Birely, New Oxford,	6.33	9.43	8.00
1179	Farm Bell Phospho Potassa,	J. C. Birely, New Oxford,	9.28	13.09	12.00

†Composite sample.

FERTILIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.				
Insoluble.	Found.	Guaranteed.	Present as muriate.	present as sulphate.	Found.	Guaranteed.			
.37	11.72	11.00	4.93	1.17	*6.10	8.00	19.14	23.00	1779
.26	*10.56	11.00	3.54	----------	*3.54	4.00	15.54	22.00	1098
.61	11.25	11.00	1.78	----------	*1.78	2.00	14.12	17.25	1400
.43	13.27	13.00	5.53	----------	5.53	5.00	19.46	18.00	1488
.61	10.94	11.00	4.16	----------	4.16	4.00	16.30	----------	60
.92	11.05	11.00	4.66	----------	*4.66	6.50	16.77	21.00 †-------- 22.00	489 62 920
.89	10.17	10.00	3.52	----------	3.52	3.00	15.00	†-------- 14.00	61 191
.93	12.80	11.00	2.26	----------	2.26	2.00	15.57	19.00 †15.00 20.00	1322 887 1774
.89	13.94	14.00	5.10	----------	*5.10	6.00	19.33	28.00	219
.45	10.61	10.50	4.83	----------	4.83	5.00	16.82	16.50	671
.85	11.37	11.00	2.28	----------	2.28	2.00	14.62	17.00 †16.00 20.00	137 5 698
.65	*10.08	10.40	2.71	----------	2.71	2.00	14.20	†15.00 14.50 16.50	581 1015 1014
.41	9.84	9.00	4.98	----------	4.98	5.00	16.45	†16.00 16.00	582 1181
.30	13.39	13.00	5.77	----------	5.77	5.00	19.81	18.00	1179

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 pounds.	Phosphoric Available Found.	Phosphoric Available Guaranteed.
	VIRGINIA'S CAROLINA CHEMICAL CO., FOR RESALE BY RASIN MONUMENTAL CO., BALTIMORE, MD.				
480	V. C. C. Co.'s Double Phosphate and Potash.	Isaac Kunkle, Winfield,	8.60	9.27	8.00
985 1201	†V. C. C. Co.'s Peerless Phosphate and Potash.	Isaac Kunkle, Winfield, J. D. Markle, Hanover,	10.25	8.42	8.00
716	V. C. C. Co.'s Standard Phosphate and Potash.	N. H. Dainer, Brookville,	8.34	10.54	10.00
	F. K. WALT CO., READING, PA.				
293	Walt's Superior Phosphate and Potash	A. D. Super, Schuylkill Haven,	9.61	10.44	10.00
	W. E. WHANN CO., PHILADELPHIA, PA., BY A. A. C. CO., THE, N. Y.				
305	Whann's Alkaline Phosphate,	S. Ellis Schwalm, Valley View,	11.52	10.59	10.00
	ROBERT A. WOOLDRIDGE CO., THE, BALTIMORE, MD.				
473 1257	†Wooldridge's German Potash Mixture.	Dershowe & Bennoge, White Deer. W. B. Kauffman, Auburn,	10.21	10.60	10.00
39 1836	†Wooldridge's Ideal Grain and Grass Producer.	W. V. Shirk, Oakland Mills, Daniel Loch, Andreas,	10.22	10.93	10.00
439 1658	†Wooldridge's No. 2 Phosphate and Potash.	W. V. Shirk, Oakland Mills, R. A. Richards, Mendenhall,	9.14	8.30	8.00
	YORK CHEMICAL WORKS, YORK, PA.				
1204	Dempwolf's Black Cross,	Frey & Sheffer, Hanover,	8.85	10.03	10.00
372 126 447	†Red Cross,	G. Eddleman, Seigfred, B. J. Crissman, Curwensville, Steininger Bros., Middleburg,	7.68	10.23	10.00
376 257 446	†York Special,	G. Eddleman, Seigfred, W. H. Rapp, Union Deposit, Steininger Bros., Middleburg,	6.68	8.30	8.00

†Composite sample.

FERTILIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.						
	Total.				Total.				
Insoluble.	Found.	Guaranteed.	Present as muriate.	present as sulphate.	Found.	Guaranteed.	Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
.80	10.07	9.00	4.11	----------	4.11	4.00	15.54	14.00	480
.89	9.31	9.00	2.17	----------	2.17	2.00	12.97	†13.00	985
								13.75	1201
1.38	11.92	11.00	2.53	----------	2.53	2.00	15.07	16.00	716
4.42	14.86	11.50	2.11	----------	2.11	2.00	15.66	17.00	293
1.28	11.87	11.00	2.38	----------	2.38	2.00	14.91	15.00	305
.87	11.47	11.00	2.30	----------	2.30	2.00	14.70	†14.00	473
								15.00	1257
1.22	12.15	11.00	4.30	----------	4.30	4.00	17.11	†16.00	39
								----------	1836
.94	9.24	9.00	4.93	----------	4.93	5.00	15.78	†16.00	439
								19.00	1658
.96	10.99	10.50	2.25	----------	2.25	2.00	14.28	15.00	1204
.79	11.02	10.50	5.29	----------	5.29	5.00	17.48	17.00	372
								†18.00	126
								17.00	447
.70	9.00	8.50	4.50	----------	4.50	4.00	15.22	16.00	376
								†15.00	257
								16.50	446

*Constituent falls below guaranty.

ACIDULATED

Furnishing

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.
	AMERICAN AGRICULTURAL CHEMICAL CO., THE, NEW YORK.	
787	†Bradley's Soluble Dissolved Phosphate.	Richard Graves, Jerwyn,
356		Geo. R. Andrews, Enon Valley,
805		Eli Yost, McEwensville,
218	†Canton Chemical Bakers' Dissolved Phosphate.	W. S. Weaver, Easton,
231		W. S. Weaver & Son, Easton,
1494	Canton Chemical Bakers' Dissolved S. C. Phosphate.	Greencastle Elevator Co., Greencastle,
64	†Crocker's Dissolved Phosphate,	J. A. Williams, Friendsville,
932		Linesville Coal, Lime & Cement Co., Linesville,
961	†Maryland Dissolved S. C. Phosphate	J. A. Gass, Sunbury, R. D.,
537		L. R. Over, New Enterprise,
1913		Smith & McElvey, Blairsville,
883	Milsom's Acid Phosphate,	Willard Arnold, Granville Center,
334	†Milsom's Dissolved Phosphate,	John Artley, Muney,
133		J. W. Eberts & Co., Clearfield,
1629		E. E. Wecter, Sligo,
1582	†Northwestern Acid Phosphate,	Jefferson Altfather, Berlin,
1383		John Davis, Middleburg Centre,
1701		Kemerer Co., Lehighton,
689	Pacific Dissolved Phosphate,	J. O. Campbell, Big Run,
784	†Read's Acid Phosphate,	David White, Jerwyn,
1255		Salem Smith, Orwigsburg,
1644	Reese's Dissolved Phosphate of Lime,	Harry Wilson, Frazer,
876	Tygert Allen Star Dissolved Phosphate,	H. A. Cramer & Son, Monroeton,
1901	Quinipiac Soluble Dissolved Phosphate,	James L. Culp, Indiana,
1751	Sharpless & Carpenter's Acid Phosphate.	L. A. Geiger, Joanna,
1657	Susquehanna Superior Rock Phosphate,	R. A. Richards, Mendenhall,
1237	Williams & Clark Acorn Acid Phosphate.	W. J. Warwick, Narrowsburg, N. Y.,
55	Wheeler's Peerless Acid Phosphate,	H. B. Chaffee, Potterville,
	ARMOUR FERTILIZER WORKS, BALTIMORE, MD.	
1326	†Cereal Phosphate,	Albee Seitz, Port Allegheny,
1421		McCalmont & Co., Bellefonte,
910	†Star Phosphate,	J. G. Walker & Sons Co., Gap,
847		Hibner Hoover & Co., DuBois,
1113		Sellers, Hoffman, Chadd's Ford,
	ATLANTIC FERTILIZER CO., BALTIMORE, MD.	
484	†Atlantic Dissolved Phosphate,	Wm. Klock, Pitman,
121		E. J. Flynn, Grampian,
1586		J. G. Emert, Somerset,
	BALTIMORE FERTILIZER CO., BALTIMORE, MD.	
86	Honest Acid Phosphate,	J. N. Leightner, Gettysburg,

†Composite sample.

ROCK PHOSPHATE.

Phosphoric Acid.

Moisture in 100 pounds.	Phosphoric Acid in 100 Pounds. Available. Found.	Available. Guaranteed.	Insoluble.	Total. Found.	Total. Guaranteed.	Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
10.34	14.58	14.00	1.35	15.93	15.00	14.20	14.00	787
							16.04	356
							14.00	805
12.11	13.86	14.00	1.28	15.14	15.00	13.64	†16.00	218
							16.00	231
8.38	15.17	14.00	1.19	16.36	15.00	14.54	13.00	1494
10.24	14.97	14.00	1.76	16.73	15.00	14.64	†17.00	64
							16.00	932
							14.50	961
11.01	14.92	14.00	1.08	16.00	15.00	14.32	†14.50	537
							16.00	1913
9.72	15.11	14.00	1.56	16.67	15.00	14.64	14.00	883
							†14.00	334
10.61	12.23	12.00	2.08	14.31	13.00	12.78	†18.00	133
							15.00	1629
							15.50	1582
9.69	15.35	14.00	1.17	16.52	15.00	14.67	†17.00	1383
							15.50	1701
12.56	14.79	14.00	2.60	17.39	15.00	14.79	16.00	689
9.00	14.37	14.00	1.58	15.95	15.00	14.11	†12.50	784
							15.00	1255
7.15	14.80	14.00	2.01	16.81	15.00	14.58	12.00	1644
10.44	14.95	14.00	1.28	16.23	15.00	14.43	15.00	876
12.50	15.04	14.00	1.62	16.66	15.00	14.61	15.00	1901
8.37	14.83	14.00	1.11	15.94	15.00	14.29	----------	1751
10.05	15.06	14.00	.80	15.86	15.00	14.32	15.00	1657
9.84	14.97	14.00	1.12	16.09	15.00	14.40	18.00	1237
11.69	14.56	14.00	1.25	15.81	15.00	14.13	15.00	55
5.32	10.07	10.00	.38	10.45	10.50	10.58	†16.00	1326
							12.75	1421
							13.50	910
8.81	14.23	14.00	.57	14.80	14.50	13.66	†18.00	847
							12.00	1113
5.38	15.74	14.00	1.08	16.82	15.00	14.94	----------	484
							†14.50	121
							14.00	1586
9.85	15.72	14.00	.93	16.65	15.00	14.85	14.00	86

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.
	BAUGH & SONS CO., PHILADELPHIA, PA.	
332 190 662	†Baugh's High Grade Acid Phosphate,	Herman Keebler, Montoursville. E. H. Keen & Co., Parkesburg, C. V. Smith, E. Stroudsburg,
112 57 129	†Baugh's 16 Per Cent. Acid Phosphate	Biglerville Warehouse Co., Biglerville, Orwell Club, Orwell, Rauch & Swartzel, Clearfield.
	BOWKER FERTILIZER CO., NEW YORK, N. Y.	
1426 964 1511	†Bowker's Soluble Phosphate,	Robt. Smith, Spring Mill, Peter Weiser, Asherton, E. H. Sloan, Orangeville, R. D. 2,
	BUFFALO FERTILIZER CO., THE, BUFFALO, N. Y.	
1624 927 1890	†Dissolved Phosphate,	J. P. Wilson, Rimersburg, Asa McDonald, Greenville, J. Baker, Carroltown,
	COE-MORTIMER CO., THE, NEW YORK, N. Y.	
774	E. Frank Coe's High Grade Soluble Phosphate.	A. W. Kenyon, Clifford,
	EUREKA FERTILIZER CO., PERRYVILLE, PA.	
838 1656	†P. & P. Super Phosphate,	A. N. Witter, Waterfall, R. A. Richards, Mendenhall,
	W. S. FARMER & CO., BALTIMORE, MD.	
1577	W. S. Farmer Co.'s Dissolved S. C. Phosphate.	P. J. Cover & Sons, Myersdale,
	GRIFFITH & BOYD CO., BALTIMORE, MD.	
747 329 1904	†High Grade Acid Phosphate,	W. C. Herr, Strassburg, Weaver & Callahan, Montoursville, J. W. Harbison, Indiana,
	S. M. HESS & BRO., INC., PHILADELPHIA, PA.	
933 1893	†High Grade Acid Phosphate,	Cambridge Springs Supply Co., Cambridge Springs, P. F. Wason, Lovejoy, R. D.,
	JERECKI CHEMICAL CO., SANDUSKI, OHIO.	
1092	C. O. D. Phosphate,	H. B. Edwards & Co., Titusville,
	LANCASTER CHEMICAL CO., LANCASTER, PA.	
1761	No. 8 Acid Phosphate,	L. W. Miller, Neffs Mills,
	LISTER'S AGRICULTURAL CHEMICAL CO., NEWARK, N. J.	
1770 1919	†Lister's Buyers Choice Acid Phosphate.	Jacob Bowser, Osterburg, G. W. Martin & Co., Saltsburg,
	F. MEHRING, BRUCEVILLE, MD.	
1187	Acid Phosphate,	J. N. Slifer, Littlestown,

†Composite sample.

PHOSPHATE—Continued.

Moisture in 100 pounds.	Phosphoric Acid in 100 Pounds. Available. Found.	Available. Guaranteed.	Available. Insoluble.	Total. Found.	Total. Guaranteed.	Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
10.21	14.73	14.00	.43	15.16	----------	13.95	14.00 †13.00 19.00 15.50	332 190 662 112
9.18	16.89	16.00	.74	17.63	----------	15.64	†13.08 15.00	57 129
9.60	14.60	14.00	.93	15.53	15.00	14.06	14.00 †---------- 13.50	1426 964 1511
13.20	14.14	14.00	1.31	15.45	15.00	13.86	16.00 †18.00 16.21	1624 927 1890
8.55	15.15	14.00	1.08	16.23	15.00	14.50	15.00	774
7.19	15.80	14.00	1.36	17.16	15.00	15.07	†16.00 15.00	838 1656
11.02	15.11	14.00	.70	15.81	15.00	14.32	17.00	1577
11.38	*13.78	14.00	2.80	16.58	15.00	14.14	13.50 16.00 15.00	747 329 1904
9.99	14.87	14.00	1.64	16.51	15.00	14.49	†18.00 15.50	933 1893
9.00	12.28	12.00	1.39	13.67	13.00	12.56	16.00	1092
5.90	*12.10	14.00	5.04	17.14	15.00	13.72	----------	1761
11.00	15.37	14.00	.82	16.19	15.00	14.58	†15.80 16.50	1770 1919
9.33	16.74	15.00	3.57	20.31	16.00	16.54	14.00	1187

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.
	MILLER FERTILIZER CO., BALTIMORE, MD.	
807 942	†Acid Phosphate,	Hartley & Blain, Turbotsville, Chas. Huston & Bro., Three Springs,
	NASSAU FERTILIZER CO., NEW YORK, N. Y.	
543 155 1596	†Soluble Phosphate,	B. F. Corle, Imler, C. L. Krape, Lemar, J. Harvey Miller, Ligonier,
	G. OBER & SONS CO., BALTIMORE, MD.	
92	Ober's Dissolved Phosphate,	D. Blocher & Co., Gettysburg,
	PIEDMONT MT. AIRY GUANO CO., BALTIMORE, MD.	
590 118 957	†Piedmont 14 Per Cent. Acid Phosphate.	M. Gillis, Hughesville, Aspers Milling & Produce Co., Aspers, John G. Simpson, Huntingdon,
	READING BONE FERTILIZER CO., READING, PA.	
1349	14 Per Cent. Acid Phosphate,	H. E. Kern, Catawissa, R. D.,
	F. S. ROYSTER GUANO CO., BALTIMORE, MD.	
1505 426 1802 1151 1302	†14 Per Cent. Acid Phosphate, †Royster's High Grade 16 Per Cent. Acid Phosphate.	W. J. Hidley, Lightstreet, R. D., E. C. Rogers, Brooklyn, D. C. Brittain, Register, John W. King, York Springs, R. D. 6, Preston Bros., Troy,
	SCHAAL-SHELDON FERTILIZER CO., BUFFALO, N. Y.	
1099	Dissolved Phosphate,	Brooklyn Milling Co., Spartansburg,
	M. L. SHOEMAKER & CO., PHILADELPHIA, PA.	
24 1134	†Dissolved S. C. Rock,	A. F. Spittler, Paradise, J. K. Lewis, Honeybrook,
	J. L. & H. STADLER RENDERING & FERTILIZER CO., CLEVELAND, OHIO.	
929	Stadler's Acid Phosphate,	McMungle Bros., Jamestown,
	SWIFT & CO., CHICAGO, ILL.	
1097	Swift's Pure Garden City Phosphate,	J. H. Rickenbrode, Hydestown,
	D. A. THOMAS & CO., HAGERSTOWN, MD.	
1487	Dissolved Phosphate,	J. A. Witherspoon, Mercersburg,
	JAMES THOMAS, WILLIAMSPORT, PA.	
884	Thomas' Dissolved Florida Phosphate,	F. E. Shoemaker, Granville Summit,

†Composite sample.

PHOSPHATE—Continued.

Moisture in 100 pounds.	Phosphoric Acid in 100 Pounds. Available. Found.	Available. Guaranteed.	Insoluble.	Total. Found.	Total. Guaranteed.	Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
7.56	14.56	14.00	1.57	16.13	14.50	14.25	†14.00 14.50	807 942
10.83	14.79	14.00	1.08	15.87	15.00	14.25	---------- †15.20 17.00	543 155. 1596
7.72	14.96	14.00	.24	15.20	15.00	14.06	14.00	92
9.37	14.18	14.00	.34	14.52	----------	13.52	14.50 †15.00 14.00	590 118 957
4.34	14.53	14.00	.87	15.40	15.00	13.99	14.00	1349
7.84	15.02	14.00	.35	15.37	15.00	14.13	---------- †18.00 14.00	1505 426 1802
8.23	17.63	16.00	.39	18.02	17.00	16.02	†15.00 17.00	1151 1302
9.88	15.33	14.00	1.65	16.98	15.00	14.85	18.00	1099
8.18	14.97	14.00	.48	15.45	15.00	14.14	†14.50 15.00	24 1134
5.10	15.02	14.00	2.84	17.86	15.00	15.03	15.00	929
10.56	14.47	14.00	.63	15.10	15.00	13.84	18.00	1097
5.37	13.92	14.00	1.36	15.28	15.00	13.68	13.00	1487
7.13	*11.80	12.00	.88	*12.68	14.00	12.02	14.00	884

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.
	J. E. TYGERT & CO., PHILADELPHIA, PA., BY A. A. C. CO., THE, N. Y.	
392	†Acid Phosphate,	B. J. Crissman, Curwensville,
697		Sykesville Hardware Co., Sykesville,
138	Tygert's Dissolved Phosphate,	Jacob Hummel, Bigler,
	ROBERT A. WOOLDRIDGE CO., BALTIMORE, MD.	
472	Wooldridge Florida Acid Phosphate,	Dershowe & Bennoge, White Deer,
	U. S. FERTILIZER CO., BALTIMORE, MD.	
1180	Farm Bell Acid Phosphate,	J. C. Birely, New Oxford,

†Composite sample.

PHOSPHATE—Continued.

Moisture in 100 pounds.	Phosphoric Acid in 100 Pounds.					Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Available.			Total.				
	Found.	Guaranteed.	Insoluble.	Found.	Guaranteed.			
11.42	15.24	14.00	.57	15.81	15.00	14.38	†16.50	392
							20.00	697
8.76	12.63	12.00	.94	13.57	13.00	12.66	14.00	138
9.96	15.39	14.00	.68	16.07	15.00	14.50	13.00	472
9.19	16.51	14.00	.33	16.84	15.00	15.21	12.00	1180

*Constituent falls below guaranty.

GROUND BONE

Furnishing Phosphoric

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.
	AMERICAN AGRICULTURAL CHEMICAL CO., THE, NEW YORK, N. Y.	
541	†Fine Ground Bone,	Joseph Kinsley, Osterburg,
337		Donaldson Hardware Co., Beaver,
573		John T. Crill, Mercer,
	ARMOUR FERTILIZER WORKS, BALTIMORE, MD.	
327	†Bone Meal,	S. G. Updegraff, Williamsport,
209		Seep Bros., Oil City,
828		J. S. Hershberger, Everett,
	BAUGH & SONS CO., PHILADELPHIA, PA.	
494	†B's Raw Bone Meal Warranted Pure,	A. K. Mohr, Coopersburg,
130		Rauch & Swartzel, Clearfield,
830		Francis Baker, Everett,
	BERG CO., THE, PHILADELPHIA, PA.	
1652	Berg's Raw Bone, Fine,	Edw. F. Bracken, Paoli,
	BOWKER FERTILIZER CO., NEW YORK, N. Y.	
1283	Bowkers Bone Flour,	W. C. Beckert, Pittsburg, N. S.,
1936	Bowkers Pure Ground Bone,	A. Hostettler, Scalp Level,
	BUFFALO FERTILIZER CO., BUFFALO, N. Y.	
1871	Pure Raw Bone,	D. J. Davis, Ebensburg,
844	†Bone Meal,	E. H. Harmon, DuBois,
699		Reynoldsville Hardware Co., Reynoldsville,
1609		Eicher & Graft & Co., Scottdale,
	HENRY V. BAXTER, CHESTER, PA.	
1664	Pure Ground Bone,	Henry V. Baxter, Chester,
	HAFLEIFH & CO., PHILADELPHIA, PA.	
1114	Pure Button Bone Dust,	S. C. Walker & Co., Chadds Ford Junction,
	FRANK HARTRANFT, COATESVILLE, PA.	
178	Pure Ground Bone,	Preston Powell, Jennersville,
	S. M. HESS & BRO., INC., PHILADELPHIA, PA.	
820	Fine Ground Bone,	Ira Price, Everett,
	HUBBARD FERTILI—7R CO., THE, BALTIMORE, Md.	
1460	Hubbard's Warranted Raw Bone,	D. J. Trout, Stewartstown,

†Composite sample.

FERTILIZERS.

Acid and Nitrogen.

Moisture in 100 Pounds.	Mechanical Analysis.		Chemical Analysis.				Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Diameter less than 1/50 inch "Fine."	Diameter greater than 1/50 inch "Coarse."	Phosphoric Acid.		Nitrogen.				
			Found.	Guaranteed.	Found.	Guaranteed.			
5.98	59	41	24.30	22.88	2.60	2.47	30.87	30.00 †-------- 33.00	541 337 573
3.70	43	57	23.44	22.50	2.36	2.47	27.84	32.00 †33.00 30.00	327 209 828
6.23	48	52	*21.15	21.50	3.74	3.70	32.62	32.00 †32.00 32.00	494 130 830
6.32	30	70	23.08	20.00	3.55	3.00	31.86	31.00	1652
4.76 6.74	99 51	1 49	21.29 22.13	19.22 20.59	3.28 3.84	2.06 3.29	34.00 33.79	40.00 31.00	1283 1936
6.00 7.70	56 54	44 46	*16.07 23.98	23.00 22.00	3.59 2.79	3.30 2.90	28.84 31.08	30.00 30.00 †32.00 34.00	1871 884 699 1609
5.21	46	54	25.65	25.00	3.03	2.47	32.70	30.00	1664
9.31	69	31	26.43	25.84	*3.50	3.98	36.78	30.00	1114
6.00	38	62	24.95	22.00	*3.49	4.12	33.45	32.00	178
5.43	57	43	26.41	22.90	2.69	2.47	32.58	----------	820
5.50	45	55	23.28	22.00	3.83	3.69	34.20	29.00	1460

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.
	LANCASTER BONE FERTILIZER CO., LANCASTER, PA.	
1435	†Pure Ground Bone,	Josiah Flinchbaugh, Windsorville,
1867		Dr. J. Rumford, Wilmore,
	D. B. MARTIN CO., PHILADELPHIA, PA.	
1646	Martin's Pure Ground Bone,	Harry Wilson, Fraser,
	POLLOCK FERTILIZER CO., BALTIMORE, MD., BY A. A. C. CO., THE, N. Y.	
1209	Pollock's Soft Ground Bone,	Strayer Bros., West York,
	READING BONE FERTILIZER CO., READING, PA.	
1268	†Pure Raw Bone,	W. H. Searfoss, Wyoming,
1765		D. Ross Gregory, Petersburg,
	JOHN T. SWACK, DUBOIS, PA.	
845	Swack's Pure Ground Bone,	Hibner Hoover & Co., DuBois,
	D. A. THOMAS & CO., HAGERSTOWN, MD.	
1037	Thomas' Fine Raw Bone,	Nickles & Stewart, Shippensburg,
	I. P. THOMAS & SONS CO., PHILADELPHIA, PA.	
916	Pure Ground Bone,	Wm. J. Moyer, Greenville,
	JAMES THOMAS, WILLIAMSPORT, PA.	
1319	Thomas' Animal Ground Bone,	Coryell & Russ Co., St. Marys,
	F. W. TUNNELL & CO., PHILADELPHIA, PA.	
1120	Pure Ground Bone,	James Dunlap, Elk View,
	YORK CHEMICAL WORKS, YORK, PA.	
185	Dempwolf's Pure Ground Bone,	W. S. Hasting & Sons, Atglen,

†Composite sample.

FERTILIZERS—Continued

Moisture in 100 Pounds.	Mechanical Analysis.		Chemical Analysis.				Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Diameter less than 1/50 inch "Fine."	Diameter greater than 1/50 inch "Coarse."	Phosphoric Acid.		Nitrogen.				
			Found.	Guaranteed.	Found.	Guaranteed.			
5.81	22	78	24.46	22.50	3.82	3.25	33.13	†28.00 30.00	1435 1867
2.21	50	50	24.30	22.90	1.50	1.65	25.90	27.00	1646
3.81	61	39	15.28	13.73	2.40	2.47	23.76	28.00	1209
4.49	35	65	20.27	18.00	3.47	3.28	30.16	†30.50 30.00	1268 1765
7.45	30	70	*21.49	30.00	*3.55	4.00	30.80	32.00	845
5.88	55	45	*19.53	20.00	4.78	3.70	36.06	-------	1037
7.04	----------	----------	24.30	23.00	*2.21	2.47	31.65	28.00	916
3.28	51	49	*23.65	25.00	1.84	1.65	26.90	32.00	1319
5.09	52	48	26.96	25.00	2.86	2.47	37.16	30.00	1120
2.55	58	42	23.65	23.00	2.47	2.47	29.70	30.00	185

*Constituent falls below guaranty.

DISSOLVED BONE

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.
	BAUGH & SONS CO., PHILADELPHIA, PA.	
661	Baugh's Pure Dissolved Animal Bone,	C. V. Smith, E. Stroudsburg,
	BOWKER FERTILIZER CO., NEW YORK, N. Y.	
973	†Bowker's Ammoniated O. I. O. Phosphate.	J. A. Kimbel, Elysburg,
1743		J. S. Lenhart, Hamburg,
	GRIFFITH & BOYD CO., BALTIMORE, MD.	
103	Pure Dissolved Animal Bone,	H. G. VanDyke, Goldenville Station,
	LISTER AGRICULTURAL CHEMICAL WORKS, NEWARK, N. J.	
1469	Lister's Celebrated Ground Bone and Tankage, Acidulated.	Edw. Bupp & Co., York,
	D. B. MARTIN CO., PHILADELPHIA, PA.	
1020	†Martin's Crop Producer,	T. J. Novmyer, Lewistown,
731		L. P. White, Manheim,
1194		A. P. Lippy, Littlestown,
	READING BONE FERTILIZER CO., READING, PA.	
120	Dissolved Animal Matter,	Grover C. Myers, Gardners Station,

†Composite sample.

FERTILIZERS.

Moisture in 100 Pounds.	Phosphoric Acid in 100 Pounds.					Nitrogen in 100 Pounds.		Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Available.			Total.						
	Found.	Guaranteed.	Insoluble.	Found.	Guaranteed.	Found.	Guaranteed.			
5.61	*12.56	13.00	1.98	14.54	--------	2.29	2.06	29.20	31.00	661
10.35	10.27	10.00	1.52	11.79	11.00	.82	.62	19.47	†15.00 20.00	973 1743
10.73	11.52	10.00	1.79	13.31	11.00	2.60	2.06	26.60	27.00	103
5.77	6.62	--------	8.26	14.88	12.00	2.90	2.67	27.86	24.00	1469
11.94	10.15	10.00	1.16	11.31	--------	1.16	1.03	19.62	17.00 †15.00 17.00	1020 731 1194
9.92	10.34	10.00	1.85	12.19	11.00	.89	.82	20.17	17.00	120

*Constituent falls below guaranty.

MISCELLANEOUS

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 Pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
	AMERICAN AGRICULTURAL CHEMICAL CO., THE, NEW YORK, N. Y.				
777	†Genuine German Kainit,	F. W. Atkinson, Clifford,	.26	------	------
335		John Artley, Muncy,			
1707		Kemerer & Co., Lehighton,			
1706	High Grade Sulphate of Potash,	Kemerer & Co., Lehighton,	1.19	------	------
224	†Nitrate of Soda,	W. H. Mitman, Easton,	1.30	------	------
54		H. B. Chaffee, Potterville,			
313		The J. N. Getz Co., Lock Haven.			
	ATLANTIC FERTILIZER CO., BALTIMORE, MD.				
1206	Genuine German Kainit,	N. N. Loose, Menges Mills,	.37	------	------
604	Nitrate of Soda,	J. C. Lebo, Millersburg,	.92	------	------
	ARMOUR FERTILIZER WORKS, BALTIMORE, MD.				
578	Genuine German Kainit,	C. L. Shipman, Hughesville,	.70	------	------
1227	Muriate of Potash,	J. I. Yetter, Saylorsburg,	.52	------	------
1226	Nitrate of Soda,	J. I. Yetter, Saylorsburg,	1.84	------	------
	BOWKER FERTILIZER CO., NEW YORK, N. Y.				
247	Nitrate of Soda,	L. G. Landis, Riverside,	1.09	------	------
	COE-MORTIMER CO., NEW YORK, N. Y.				
1274	†Basic Slag, Thomas Phosphate Powder.	I. N. Scott & Co., Pittsburg,	.18	------	------
412		B. C. Tourgee, New Milford,			
1338		Davis Bros., Kane,			
	GERMAN KALI WORKS, BALTIMORE, MD.				
742	†Kainit,	S. Book & Bros., Quarryville,	.69	------	------
711		B. W. Fetzer, Brookville,			
1446		C. F. Grove, Felton,			
1665	Manure Salt,	Henry V. Baxter, Chester,	.59	------	------
123	†Nitrate of Soda,	E. J. Flynn, Grampian,	1.96	------	------
741	†Sulphate of Potash,	S. Book & Bro., Quarryville,	.39	------	------
485		Wm. Klock, Pitman,			
274		W. H. Muth, Lititz,			
1275		I. W. Scott & Co., Pittsburg,			
	GRIFFITH & BOYD CO., BALTIMORE, MD.				
104	†Genuine German Kainit,	H. G. Van Dyke, Goldenville Station.	.42	------	------
330		Weaver & McCallahan, Montoursville.			
999	Nitrate of Soda,	Wm. M. Vease, Kantz,	3.11	------	------
	S. M. HESS & BROS., INC., PHILADELPHIA, PA.				
819	Muriate of Potash,	Ira Price, Everett,	1.15	------	------
	HUBBARD FERTILIZER CO., THE, BALTIMORE, MD.				
113	Hubbard's Pure German Kainit,	Biglerville Warehouse Co., Biglerville.	1.88	------	------

†Composite sample.

FERTILIZERS.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen in 100 Pounds.		Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
	Total.				Total.						
Insoluble.	Found.	Guaranteed.	Present as muriate.	Present as sulphate.	Found.	Guaranteed.	Found.	Guaranteed.			
										15.00	777
--------	--------	--------	12.62	--------	12.62	12.00	--------	--------	14.85	†14.00	335
										14.00	1707
--------	--------	--------	48.80	--------	48.80	48.00	--------	--------	60.56	56.00	1706
										49.00	224
--------	--------	--------	--------	--------	--------	--------	15.60	15.00	61.90	†52.50	54
										55.00	313
--------	--------	--------	15.49	--------	15.49	12.40	--------	--------	17.82	12.50	1206
--------	--------	--------	--------	--------	--------	--------	15.92	15.65	63.06	50.00	604
--------	--------	--------	12.52	--------	12.52	12.00	--------	--------	14.76	14.00	578
--------	--------	--------	51.35	--------	51.35	48.00	--------	--------	54.38	45.00	1227
--------	--------	--------	--------	--------	--------	--------	15.98	14.81	63.44	52.00	1226
--------	--------	--------	--------	--------	--------	--------	16.12	15.00	63.82	--------	247
										20.00	1274
--------	18.03	17.00	--------	--------	--------	--------	--------	--------	--------	†19.00	412
										26.00	1338
										13.00	742
--------	--------	--------	13.18	--------	13.18	12.00	--------	--------	15.46	†14.00	711
										12.00	1446
--------	--------	--------	21.53	--------	21.53	20.00	--------	--------	23.98	16.00	1665
--------	--------	--------	--------	--------	--------	--------	15.72	15.00	62.29	†50.00	123
										50.00	741
										--------	485
--------	--------	--------	51.14	--------	51.14	48.00	--------	--------	63.38	†--------	274
										54.00	1275
--------	--------	--------	12.70	--------	12.70	12.00	--------	--------	14.96	†15.00	104
										14.00	330
--------	--------	--------	--------	--------	--------	--------	*12.58	15.66	50.38	--------	999
--------	--------	--------	48.96	--------	48.96	49.00	--------	--------	51.93	--------	819
--------	--------	--------	12.78	--------	12.78	12.40	--------	--------	15.07	14.00	113

*Constituent falls below guaranty.

Sample number.	Manufacturer and Brand.	From Whom Sample Was Taken.	Moisture in 100 Pounds.	Phosphoric Available. Found.	Phosphoric Available. Guaranteed.
	LISTER'S AGRICULTURAL CHEMICAL WORKS, NEWARK, N. J.				
237	Nitrate of Soda,	Sylvestus Gair, Easton,	1.63	------	------
	D. B. MARTIN CO., PHILADELPHIA, PA.				
1962	Dried Blood,	D. B. Martin Co., New Holland	8.36	------	------
	PATAPSCO GUANO CO., BALTIMORE, MD.				
1178	Genuine German Kainit,	J. N. Hersh, New Oxford,	2.70	------	------
	PIEDMONT MT. AIRY GUANO CO., BALTIMORE, MD.				
959	Sulphate of Potash,	John G. Simpson, Huntingdon,	1.62	------	------
	PITTSBURG PROVISION & PACKING CO., PITTSBURG, PA.				
1612	Pure Bone and Meat,	Weddle & Sutton, West Newton	------	12.26	------
	RAISIN-MONUMENTAL CO., BALTIMORE, MD.				
1116	Rasin's Genuine German Kainit,	S. C. Walker & Co., Chadds Ford Junction.	1.11	------	------
937 1993	†Muriate of Potash,	H. E. Huston, Saltillo, A. H. Griffin, Elton,	.58	------	------
	READING BONE FERTILIZER CO., READING, PA.				
406	Muriate of Potash,	G. B. Wachole, Luthersburg,	.48	------	------
1844	Nitrate of Soda,	W. H. Strass, Lehighton,	1.66	------	------
	D. W. ROMBERGER, ELIZABETHVILLE, PA.				
607	Romberger Tankage,	D. W. Romberger, Elizabethville.	5.48	------	------
	F. S. ROYSTER GUANO CO., BALTIMORE, MD.				
1152	Genuine German Kainit,	John W. King, York Springs, R. D. 6.	1.19	------	------
1346 1801	†Muriate of Potash,	N. C. Creasy, Catawissa, D. C. Brittain, Register,	.78	------	------
782 1153	†Nitrate of Soda,	Wm. A. Russell, Carbondale, John W. King, York Springs, R. D. 6.	1.62	------	------
	JOHN SWACK, DUBOIS, PA.				
407	Swacks Ground Tankage,	G. B. Wachole, Luthersburg,	9.06	------	------
	D. A. THOMAS & CO., HAGERSTOWN, MD.				
1039	Kainit,	Nickles & Stewart, Shippensburg.	1.57	------	------
	I. P. THOMAS & SONS CO., PHILADELPHIA, PA.				
83 1533	†Top Dresser for Grass,	C. A. Hershey, Tillie, Ed. Shuey, Walmers Church,	3.86	------	------
	YORK CHEMICAL WORKS, YORK, PA.				
1005	German Kainit,	E. N. Erdley, Salem,	.27	------	------

†Composite sample.

LIZERS—Continued.

Acid in 100 Pounds.			Potash in 100 Pounds.				Nitrogen in 100 Pounds.		Computed commercial value of 2,000 pounds at Department rating.	Selling price of 2,000 pounds at point of selection.	Sample number.
Insoluble.	Total.		Present as muriate.	Present as sulphate.	Total.		Found.	Guaranteed.			
	Found.	Guaranteed.			Found.	Guaranteed.					
-------	-------	-------	-------	-------	-------	-------	15.70	15.00	62.29	52.00	237
-------	-------	-------	-------	-------	-------	-------	*7.82	9.89	40.64	-------	1962
-------	-------	-------	11.30	-------	*11.30	12.00	-------	-------	13.58	14.50	1178
-------	-------	-------	48.64	-------	48.64	48.00	-------	-------	51.62	50.00	959
-------	*4.31	8.00	-------	-------	-------	-------	8.63	4.93	37.70	28.00	1612
-------	-------	-------	11.80	-------	*11.80	12.00	-------	-------	4.04	14.00	1116
-------	-------	-------	50.38	-------	50.38	49.00	-------	-------	53.41	†50.00 45.00	937 1993
-------	-------	-------	49.80	-------	*49.80	50.00	-------	-------	52.80	44.00	406
-------	-------	-------	-------	-------	-------	-------	15.69	14.50	62.29	57.00	1844
-------	*13.45	13.97	-------	-------	-------	-------	6.12	6.16	40.04	40.00	607
-------	-------	-------	12.78	-------	12.78	12.00	-------	-------	15.06	14.00	1152
-------	-------	-------	51.50	-------	51.50	50.00	-------	-------	54.52	†45.00 45.00	1346 1801
-------	-------	-------	-------	-------	-------	-------	15.94	15.22	63.25	†50.00 51.00	782 1153
-------	17.64	16.00	-------	-------	*.14	3.00	*2.48	3.00	27.76	25.00	407
-------	-------	-------	12.32	-------	12.32	12.00	-------	-------	14.55	-------	1039
-------	-------	-------	5.46	1.82	7.28	5.00	*8.05	9.00	43.09	†46.00 47.50	83 1533
-------	-------	-------	12.60	-------	12.60	12.40	-------	-------	14.86	-------	1005

*Constituent falls below guaranty.